Understanding the 'Why':
A Research Study on the Motivations of Graduate Students for Public Engagement

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Abstract

The purpose of this research study was to better understand the motivations of graduate students at U.S. higher education institutions for involvement in public engagement. The study employed a mixed-methods research approach with a modified transformative sequential strategy to identify and analyze graduate student motivations for public engagement, and was guided by the typology of Dr. KerryAnn O'Meara (2008) on faculty motivations for public engagement in combination with the findings of Dr. Timothy Eatman (2012) on publicly-engaged graduate and early career scholars. This study contributes to extant literature on motivations for public engagement through its focus on a less-studied population (graduate students) and development of a conceptual model for understanding graduate student motivations for public engagement. On a more practical level, findings may also enhance institutional, departmental, and programmatic understanding of how to cultivate and sustain graduate student motivations for public engagement.

Key words: Graduate Students, Public Engagement, Motivation

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Introduction

> I seek to make three main points about [publicly-engaged scholarship] in graduate education: 1) there is a growing core of individuals who conduct research and involve themselves in engaged community work both in the academy and in the larger society; 2) there is room within a continuum of scholarship for their work; 3) understanding their mindsets, needs, roles, and aspirations is an essential aspect of supporting the development of knowledge creators and nurturing the emerging citizenry of academe (Eatman, 2012, p. 27).

In the above quote, public engagement scholar Dr. Timothy Eatman speaks to a rise in public engagement work among graduate students, the importance of this work, and the need for research on this population to inform the support and development of this next generation of academics and public engagement scholars. His statement followed the sharing of findings from a pioneering study on the experience and profiles of publicly-engaged graduate students and early career scholars completed in partnership with the consortium, *Imagining America*. While extensive, the study laid the foundation and made a call for further research to better understand the public engagement experience of this population. The following research study is in part a response to this call, and aims to enhance our nascent understanding of graduate student public engagement by focusing specifically on the motivations of this population for public engagement—a mostly unexplored area of research.

Public Engagement: What it is and Why it Matters

Although the presence and general awareness of public engagement activity has increased on American higher education campuses in recent decades, as Holland (1999) observes, "across higher education, we lack a common understanding of the language of public service. A confusing myriad of terms has arisen, and the rhetoric of public service

is not clear" (p. 39). Terms such as *community engagement*, *civic engagement*, *public service*, and *publicly-engaged scholarship* are often used interchangeably, although meaning and interpretation can vary across institutions and organizations. For example, the Carnegie Foundation's Community Engagement classification utilizes the term *community engagement* to describe this university-public activity, and defines it as "collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity" (New England Resource Center for Higher Education, n.d.). While the University of Minnesota was awarded the Community Engagement Classification from the Carnegie Foundation, it uses the term *public engagement* to describe university-community activity, and defines it as:

> the partnership of university knowledge and resources with those of the public and private sectors to enrich scholarship, research, and creative activity; enhance curriculum, teaching and learning; prepare educated, engaged citizens; strengthen democratic values and civic responsibility; address critical societal issues; and contribute to the public good (University of Minnesota, 2012).

Hence, while overlap exists between terms and understanding across institutions and organizations, there is room for nuance in definition and terminology. For the purposes of this study the researcher has chosen to use the term *public engagement* and the University of Minnesota's definition of this term.

In addition to difference in terminology, there can also be variation in understanding of the kinds of activity that qualify as public engagement from institution to institution. A framework developed by Doberneck, Glass, and Schweitzer (2010) addresses this issue, and offers a typology of faculty public engagement activity (Table

1). Although informed by and designed for publicly-engaged faculty, it serves as a basis for beginning to identify common public engagement activity among graduate students.

Publicly Engaged Research and Creative Activities
1. Research–business, industry, commodity, group funded
2. Research–nonprofit, foundation, government funded
3. Research–unfunded or intramurally funded applied research
4. Creative activities
Publicly Engaged Instruction
5. Instruction–credit–nontraditional audiences
6. Instruction–credit–curricular, community-engaged learning
7. Instruction–noncredit–classes and programs
8. Instruction–noncredit–managed learning environments
9. Instruction–noncredit–public understanding, events, and media
Publicly Engaged Service
10. Service–technical assistance, expert testimony, and legal advice
11. Service–cocurricular service-learning
12. Service–patient clinical, and diagnostic services
13. Service–advisory boards and other discipline-related service
Publicly Engaged Commercialized Activities
14. Commercialized activities

Table 1. Typology of Publicly Engaged Scholarship (Doberneck, et. al., 2010, p. 18).

Similar to this framework, the public engagement of graduate students can involve funded or unfunded research with non-university entities or communities. This research might occur as a part of graduate dissertation or thesis work, a community-based research course, or research completed separate from the students' thesis or dissertation. As many graduate students act as instructors during their course of study, the publicly-engaged instruction category of activity outlined in Table 1 can also apply to graduate students. A recent study by Garrison and Jaeger (2014) on the topic of graduate student motivations for teaching service-learning noted that "although service-learning has traditionally developed within undergraduate education, many graduate students do, in fact, show

interest in using service-learning in their classrooms" (p. 41). Unlike faculty, however, graduate students may, in addition to teaching, enroll in coursework involving public engagement. Lastly, paralleling the "service" category in Table 1, graduate students sometimes participate in public-engagement in the form of volunteer activity, or extra-curricular service or research. While public engagement takes various forms and definitions, in essence it is the mutually-beneficial partnership and collaboration between higher education stakeholders and the public.

In a 2012 piece on engagement in higher education, Fitzgerald, Bruns, Sonka, Furco, and Swanson asserted that "to thrive in the 21st century, higher education must move engagement from the margin to the mainstream of its research, teaching, and service work" (p. 23). This perspective on public engagement as central to the role and success of post-secondary education in the U.S. is an extension of a long-standing historical relationship between the public and academia in American higher education, particularly for land-grant and public institutions. Fitzgerald, et. al., (2012) cite the important role of three legislative acts of the 19th and early 20th centuries (the Morrill Act of 1862; the Hatch Act of 1887; and the Smith-Lever Act of 1914) in forging this relationship and establishing a "public system for connecting universities and citizens to build a stronger democratic society" (p. 9). In the final decades of the 20th century the work of engagement scholars such as Ernest Boyer represented a renaissance of focus on the public mission of the university. Boyer asserted that "higher education had drifted too far from its public purpose" and advocated for a new model of engagement that "required institutions of higher education to rethink [their] structure, epistemology, and

pedagogy; integration of teaching, research, and service missions; and reward systems" (Fitzgerald, et. al., 2012, p. 10). The 1990s and early 2000s witnessed a flourishing of public engagement activity as the pedagogy and practice of service-learning took root across campuses and research publications, professional associations, and awards focused on public engagement in higher education emerged. Saltmarsh (2008) described this ongoing growth of public engagement as "a kind of revolution in higher education, nationally and globally, in which universities are reinventing the way they fulfill their core purposes and...are becoming institutions that interact with the world outside the university" (p. 64)

This vision continues and many view public engagement as central to the future direction of higher education. Fitzgerald, Bruns, Sonka, Furco, and Swanson (2012) assert that "a more comprehensive level of engagement between the university and its many communities will foster stronger support from multiple sources for the future of higher education and society" (p. 8). Additionally, research has indicated that many publicly-engaged faculty believe public engagement to be "cutting-edge for their discipline and for professional communities outside their institution" (O'Meara, 2008, p. 19). This thesis research study recognizes the historical and future significance of public engagement within post-secondary institutions, and seeks to add to the burgeoning literature on public engagement. Furthermore, it is the researcher's hope that better understanding of the current experience of publicly-engaged populations in higher education will aid institutions in their progression toward the "more comprehensive level of engagement" that Fitzgerald, et. al., (2012) envision.

Why Graduate Students?

As already addressed in the introductory quotation from Eatman and echoed in the research of Armstrong, Dickey, Lindemann, and Rosario (2015), publicly-engaged graduate students have not received as much attention in research as publicly-engaged undergraduate and faculty populations. Garrison and Jaegar (2014) make a similar observation regarding research on service-learning, stating that "although the use of service-learning in higher education by tenure-track and full-time faculty members is well-documented, current higher education literature fails to address or examine the use of service-learning by graduate student instructors" (p. 41). Thus, a key rationale for focusing on this population is the absence of extant literature on publicly-engaged graduate students.

The second rationale informing the researcher's decision to focus on this population relates to the final point of the introductory quotation: current graduate students make up the next generation of faculty. If institutions are to understand how to support future publicly-engaged faculty, there is benefit to understanding the motivations of these populations *prior* to becoming faculty. Thus, in combination with existing research, the findings of this study have the potential to paint a fuller picture of the trajectory of publicly-engaged scholars' motivations for their public engagement.

Why Motivation?

There are many aspects of public engagement in higher education to be studied. Given the early nature of research on the publicly-engaged graduate student population, an exploration of motivations for public engagement positively contributes to extant

literature. Other scholars of public engagement have set precedence for focusing on motivational factors to understand the public engagement of both undergraduate and faculty populations in higher education. In his 1992 publication on human motivation and Motivation Systems Theory, psychology scholar Martin Ford emphasized the importance of motivation in his statement, "motivation is at the heart of many of society's most pervasive and enduring problems, both as a developmental influence on behavior and personality" (p. 2). Although public engagement does not classify as a "problem" per se, this quotation speaks to the importance of motivation to understanding human behavior. Focusing on the motivations of publicly-engaged graduate students bears the potential to not only enhance understanding of the behavior of this population, but also provide a basis for institutional conversation on supporting graduate students' publicly-engaged work.

Literature Review

Extensive research on the nature of motivation has been conducted in the fields of psychology, organizational behavior, and education, resulting in numerous conceptual frameworks and theories of motivation. In more recent decades, as research on public engagement in higher education has grown, a subset of literature on motivations related to public engagement has emerged. As explained in the following sections, extant literature on the topics of motivation and public engagement has primarily focused on faculty and undergraduate populations. This study adds to this research by addressing motivations specific to graduate students, and building upon the conceptual frameworks

and findings outlined to produce a new conceptual model for understanding the motivational factors of this population.

Faculty Motivations for Public Engagement

According to O'Meara (2008) "research on faculty motivation for community engagement is embedded in a rich and expansive literature on faculty motivation and behavior" (p.8). Beginning in the 1990s and expanding in the 2000s "a small but growing number of scholars have studied faculty motivations for community engagement specifically" (O'Meara, 2008, p. 9). Although investigations have focused on faculty motivations related to various forms of public engagement, the most predominant types examined are service-learning and publicly-engaged scholarship.

On the topic faculty motivations for service-learning, an early piece by Hammond (1994) presented findings on the association between motivation and satisfaction among faculty using service-learning pedagogies. Abes, Jackson, and Jones built upon this with their 2002 study identifying specific factors that motivate and deter faculty use of service-learning. Their findings suggested that "service-learning faculty are motivated by a range of factors...[with] student-learning outcomes provid[ing] the strongest motivation" (2002, p.12). This paralleled Hammond's (1994) findings on the significance of curricular concerns to faculty use of service-learning, which was later reinforced by the research of Forbes, Wasburn, Crispo, and Vandeveer (2008). In their case study on faculty motivation for teaching service learning at Research I institutions, Forbes, et. al. (2008) developed a list of ranked motivating factors for use of service-learning, among them: curriculum development; assessment; community partner support;

faculty training; professional development; and recognition through grant funding and promotion and tenure (p. 36).

In a 2003 article, O'Meara examined intrinsic and extrinsic motivation for faculty engagement, and applied Bolman and Deal's 'four frames' model to better understand incentives and rewards for faculty use of community-service (p. 215). In 2014, Darby and Newman addressed faculty motivations not just for involvement in service-learning, but for *persistence* in service-learning, and developed a conceptual model of these patterns of persistence in the form of a cycle of motivation. McKay and Rozee's (2004) research on the "shared attitudes, beliefs, and values among faculty who embrace CSL pedagogy" further developed understanding of publicly-engaged faculty (p. 29-30). From this collective literature, not only have motivational factors for the use of service-learning been identified, but also the characteristics and profiles of this population.

Regarding motivation for publicly-engaged scholarship, Colbeck and Michael's (2006) research expanded understanding of the influences on faculty public scholarship through the formation of a conceptual framework outlining individual versus organizational influences on faculty motivation. Colbeck and Weaver (2008) added to this through a study on the motivational patterns of public research university faculty involved in public scholarship, with the intent of identifying "leverage points" for encouraging faculty public scholarship (p. 7). Major themes included: prior experiences, professional identity, goals, individual capability beliefs, institutional and departmental context beliefs, emotions, integration, and pervasiveness (Colbeck and Weaver, 2008). In the same year, O'Meara (2008) completed an explorative study of faculty motivations for

community engagement resulting in new typology of faculty motivations for public engagement. It is this framework that the researcher selected as one of two primary conceptual guides for approaching this research study.

Undergraduate Motivations for Public Engagement

Similar to research on faculty populations, research on undergraduate student motivations for public engagement has principally revolved around specific public engagement activities, namely student volunteering (service) and service-learning. Addressing motivation for volunteering, an early study by Winniford, Carpenter, and Grider (1997) applied various volunteer motivation theories and findings to college students to create a conceptual framework for future research on college volunteer motivations. In 1998, Marotta and Nashman contributed findings on the "satisfactions and stressors associated with volunteerism" of Generation X college students, identifying the unique nature of that generation's volunteerism in comparison to previous generations' motivations (p. 18). More contemporary research on this subject includes a study by Beehr, Bowling, and Swader (2010) that analyzed relationships between motivations for required versus non-required volunteering, and found that "consistent with cognitive theories of internal and external motivation...courses requiring volunteer work might affect motives behind volunteering" (p. 278). Moore, Warta, and Erichsen (2014) examined the motivations and volunteering history of college students and determined that "the strongest motives for [college student] volunteering were Values (e.g., altruistic volunteering) and Understanding (e.g., volunteering for the opportunity to have new learning experiences)" (p. 394).

Gage and Thapa (2012) applied the Volunteer Function Inventory of Clary, et. al., (1998) to examine college student motivations to volunteer. They also looked at association between volunteer motivation and constraints, finding that "as interpersonal and structural constraints increased, the values and understanding motivations simultaneously decreased" (p. 423). Soria and Thomas-Card's (2014) research examined the association between college students' motivations for community service and their desire to extend their engagement with community activity post-graduation. In combination, these studies represent a comprehensive examination of the nature and impacts of undergraduate motivations for volunteering in college.

Literature on undergraduate student motivations for service-learning, like that on faculty motivation, has identified multiple factors of motivation. In some instances researchers organized motivations in an intrinsic-extrinsic framework (Pope-Ruark, Ransbury, Brady, and Fishman, 2014); in others, researchers explored associations between certain factors and student learning outcomes (Chesbrough, 2011) or student attitudes (Muturi, An, and Mwangi, 2013). Research has also been completed on the fluctuation of students' motivation over the course of a semester, which parallels O'Meara's (2008) finding that "motivations for community engagement change throughout a career and involvement in the work itself" (p. 24). A 2013 study by Darby, Longmire-Avital, Chenault, and Haglund examined changes in student motivation over the course of the semester and factors associated with these shifts in motivation. Their findings resulted in recommendations "for marketing of service opportunities to students, involving students in service early in their college years, and expanding and centralizing

service as a core mission of the college or university" (2013, p. 687). As Darby, et. al.'s study demonstrates, a key rationale for investigations into the motivations of these populations is to increase institutional understanding of how to cultivate, support, and maintain various university stakeholders' motivation for public engagement activity.

Research on Graduate Student Public Engagement

Although still catching up to the literature on publicly-engaged faculty and undergraduate populations, since 2000 research explicitly focused on graduate student public engagement has grown. Research topics include best practices for supporting or facilitating graduate student public engagement in various contexts, such as: specific disciplines (Wittmar 2004; Narsavage et. al., 2003; Slater 2008); advising and mentoring (Jaeger, Sandman, & Kim 2011; Krabill 2012); and stages of doctoral student development (O'Meara 2008; Schnitzer & Stephenson 2012). Research and recommendations have also centered around the benefits of public engagement for graduate student development and learning (Blee, et. al., 2008; O'Meara 2008; Wittmar 2004; Day et. al. 2012) as well as career development and employment (Day et. al., 2012, Meighan 2012).

One of the most comprehensive studies to date on graduate student publicly-engaged scholars was completed in 2011 by Eatman, Weber, Bush, Natasi, and Higgins and the organization, *Imagining America* (Eatman, 2012). This mixed-methods study engaged 54 participants in interviews and 434 participants in an online survey with the aim of "profil[ing] self-identified publicly engaged scholars to learn about their educational and career aspirations, including reflections on their identity development,

professional evolution, and motivations" (Eatman, 2012, p. 39). Although this study and the aforementioned research enrich our understanding of publicly-engaged graduate students, there still is room for more research; as Eatman notes, there has been a "lack of attention placed upon graduate education in [the] evolving context [of civic engagement]", with studies on graduate student motivations for public engagement—unlike studies on faculty and undergraduate motivations—limited (2012, p. 43).

Conceptual Frameworks

Many conceptual frameworks have been developed through these studies, especially those on faculty and undergraduate motivations; however, the researcher chose to focus on the applicability of O'Meara's (2008) typology of faculty motivation to graduate student populations, and to use the typology and findings of Eatman's (2012) study on publicly engaged scholars to support this examination and interpret findings. This selection of frameworks was chosen as, in combination, they provide a strong basis for investigating motivations specific to the publicly-engaged graduate student population.

O'Meara's typology of faculty motivation. O'Meara's (2008) framework on faculty motivation outlines seven types of motivation gleaned through an exploratory analysis of sixty-eight community-engaged faculty "exemplars" nominated for the National Campus Compact Thomas Ehrlich Faculty Award for Service-Learning (p.8). Participants were faculty award nominees who had:

> (a) excelled in innovative ways in connecting community and public service experiences with academic study, (b) demonstrated scholarship on the pedagogy of service-learning, published community-based action research, or conducted research on the impacts of service-learning on students, campuses or

> communities, and (c) shown leadership that promoted service-learning and engagement on their campus, in their discipline, and throughout higher education (O'Meara, 2008, p. 11).

Utilizing the constant comparative method, O'Meara's analysis of the faculty nominee files resulted in categories of motivation that:

> (a) reflected the extant research and/or could be interpreted using extant research, (b) were exhaustive in holding all available data, (c) were mutually exclusive, even if related to each other, (d) were close in phrasing to what the participants actually said, and (e) were conceptually congruent (2008, p. 12).

O'Meara's framework not only describes the types of motivations observed, but the prevalence of each within the sample (Table 2, middle column), and how they relate to existing literature on faculty motivation and motivation theory (right-most column).

	Type of motivation	Prevalence in Ehrlich files	Connection to extant literature
I.	To facilitate student learning and growth	94%	Relates to *individual goals* (Colbeck & Michael 2006; Ford 1992), *intrinsic motivation* (Austin & Gamson 1983)
II.	To achieve disciplinary goals	53%	Relates to *individual goals* that a faculty member may be socialized toward within a discipline; *social knowledge* of expectations of a discipline (Blackburn & Lawrence 1995)
III.	Personal commitments to specific social issues, places, and people	50%	Relates to *individual goals*, *intrinsic motivation*, *self-knowledge* (Blackburn & Lawrence), and perhaps also *what can be learned* from partnership (Neumann 2000)
IV.	Personal/ professional identity	60%	Relates to *self-knowledge*, *individual goals*, *intrinsic motivation*
V.	Pursuit of rigorous scholarship and learning	44%	Relates to the concept of *self-directed learning* and *what can be learned*, *individual goals*, and *intrinsic motivation*
VI.	A desire for collaboration, relationships, partners, and public-making	47%	Relates to *individual goals*, *intrinsic motivation*, *self-knowledge* and *social knowledge*, and *what can be learned* from partnership
VII.	Institutional type and mission, appointment type, and/or an enabling reward system and culture for community engagement	50%	Relates to *beliefs about the supportiveness of one's contexts* (Colbeck & Michael 2006; Ford 1992), *extrinsic rewards*, *social knowledge*

Table 2. O'Meara's (2008) typology of faculty motivation (p. 14).

O'Meara Typology	Eatman Typology and Findings
I. To facilitate student learning and growth	"Benefits of using public scholarship as a form of pedagogy" (p. 42) ; *Teacher to Engaged Scholar* profile (p. 42)
II. To achieve disciplinary goals	77% of survey respondents indicated the "desire to expand knowledge, method and /or scholarship in the discipline" through engaged scholarship" (p. 40)
III. Personal commitment to specific social issues, places, and people	"Personal and familial history" (p. 42); *Cradle to community* profile (p. 42); *Activist to scholar* profile (p. 43)
IV. Personal/professional identity	*Bridging worlds theme:* Interview respondents expressed a desire "bridge different aspects, values, and parts of their lives as a motivation for undertaking engaged scholarship" (p.41); 73.33% of participants identified as "scholars" in the larger context of Publicly Engaged Scholarship (p. 40)
V. Pursuit of rigorous scholarship and learning	"data challenge prevailing view that publicly engaged scholars are less concerned with rigors of methodologically grounded, discipline-specific work" (p. 40); *Engaged Pragmatist* profile (p. 43)
VI. Desire for collaboration, relationships, partners, & public making	Top collaborators/partners in respondents PES: community members (26.7%), faculty (24.55%), non-profit organizations (17.19%), and fellow graduate students (14.29%); "Recurring motivations included...a natural, innate, assumed desire to connect scholarship and service" (p. 42)
VII. Institutional type and mission, appointment type, and/or an enabling reward system and culture for community engagement	Theme of *Institutional Recognition* (p. 41)

Table 3. Comparison of the findings of O'Meara (2008) and Eatman (2012).

Frameworks, themes, and findings of Eatman's (2012) study on graduate and early career publicly-engaged scholars. As previously explained, Eatman's (2012) large-scale, national study was completed with the intent of increasing understanding of the characteristics, experience, and motivations of self-identified publicly-engaged graduate and early-career scholars. To date, data analysis of this study is ongoing and only preliminary findings have been published. Nonetheless, findings thus far offer

important insight for understanding and approaching research on graduate student and early-career publicly-engaged scholars.

From analysis of both qualitative and quantitative findings, Eatman and his research colleagues developed a "typology of publicly engaged scholars that comprises seven nascent profiles" (2012, p. 42); Table 4 outlines the profiles and descriptions of each. Eatman also published themes that emerged from the study's interview data, which included: *mentorship* ("the importance of mentors who either introduced [participants] to publicly engaged scholarship or supported them on a path of engaged scholarly work"); *bridging worlds* (the "desire to bridge different aspects, values, and parts of [participants'] lives as a motivation for undertaking engaged scholarship"); *sphere of commitment* (the "importance of both engaging in the local community and the historical context and relationships between and institution and its local community"); *institutional recognition* (perspective of publicly engaged scholars on the tenure track on institutional support and idea "that for their university to fully commit to public scholarship, schools and departments should recognize PES within the tenure process"); c*reativity and flexibility* (participants' value for the "creativity and flexibility" facilitated by public scholarship); *motivation* (motivation factors included "the benefits of using public scholarship as a form of pedagogy; personal and familial history; and a natural, innate, assumed desire to connect scholarship and service") (2012, pp. 41-42).

Profile	Description
I. Cradle to Community	This profile type describes scholars who become involved with their local communities because of personal values (e.g., religious, familial). Their involvement with the community may be what leads them to pursue graduate work.
II. Artist as Engaged Scholar	This profile describes a local artist who uses the community as a "canvas." The artist as engaged scholar is grounded in both the academy and the arts.
III. Teacher to Engaged Scholar	This profile is typified by the K – 12 teacher who enters the academy for graduate work and teaching, but remains committed to the role of active researcher thin secondary schools. College professors represented here may be looking for ways to improve teaching and learning and make connections with their students through publicly engaged work.
IV. Program Coordinator to Engaged Administrator/Scholar	This profile depicts an administrator in higher education who holds a leadership role in a center, an institute, or a consortium for campus-community partnerships while also holding a faculty position.
V. Engaged Interdisciplinarian	This profile depicts a scholar whose identification with one specific discipline is shallow, but who leverages every opportunity to draw upon different domains of inquiry fore enhancement of community-based work.
VI. Activist to Scholar	This profile captures the community activist who connects with the university and uses it as a platform to further pursue activism.
VII. Engaged Pragmatist	This public scholar "sees the writing on the wall" and recognizes that publicly engaged scholarship is becoming prevalent within the academy. For a scholar of this variety, motivation is grounded more in the perceived direction of higher education than in an abiding commitment to civic engagement.

Table 4. Eatman's (2012) typology of publicly engaged scholars (pp. 42-43).

Other findings from this study included: percentage distributions related to participants' public engagement goals; factors that attracted participants to public scholarship; and influential partners or collaborators for participants' public engagement.

While data included the perspectives of early-career scholars (among them, early-career faculty), they still offer valuable insight into the experience of publicly-engaged graduate students, and enrich understanding of how O'Meara's (2008) framework might be applied to and interpreted for graduate student populations.

Theories of motivation. Within the literature on motivation and public engagement, a range of motivation theories have been employed to interpret findings. These include (but are not limited to): Maslow's Hierarchy of Human Needs (Muturi, 2013); Expectancy Motivation Theory (Muturi, 2013); Bandura's Social Cognitive Theory (Darby & Newman, 2014); Ryan and Deci's Self-Determination Theory (Soria & Thomas-Card, 2014); Motivational Systems Theory (Colbeck & Weaver, 2008; O'Meara, 2008); and the extrinsic/intrinsic dichotomy (O'Meara, 2008). As this study applies O'Meara's (2008) framework to graduate students, the researcher chose to use a similar approach to motivation theories for interpretation of findings.

O'Meara (2008) describes her method for interpreting motivations as "an interdisciplinary approach to conceptualizing motivation that is informed by three overlapping theories regarding motivation and learning in faculty work" (p. 9). The first of these is Ford's (1992) Motivational Systems Theory (MST). According to Ford (1992):

> MST is designed to represent all three sets of phenomena that have traditionally been of concern in the field of human motivation: the selective *direction* of behavior patterns (i.e., where people are heading and what they are trying to do); the selective *energization* of behavior patterns (i.e., how people get 'turned on' or 'turned off'); and the selective *regulation* of behavior patterns (i.e., how people decide to try something, stick with it, or give up) (pp. 2-3).

He asserts that motivation is influenced by three factors: personal goals, emotions, and personal agency beliefs, and provides a simplified visual of this relationship in the equation outlined in Figure 1.

Motivation = Personal Goals x Personal Agency Beliefs x Emotions

Figure 1. Visual representation of Ford's (1992) Motivation Systems Theory (p. 248).

Ford (1992) describes the first factor in this MST equation—*personal goals*— as "thoughts about desired (or undesired) states or outcomes that one would like to achieve (or avoid)" (p. 248). *Personal agency beliefs,* according to Ford, are "evaluative thoughts involving a comparison between desired consequence (i.e., some goal) and an anticipated consequence (i.e., what the person expect happen if they pursue that goal) (p.251). Ford breaks these down into two types: 1) *capacity beliefs*, which relate to the individual's perception regarding their possession of the skills or abilities necessary to achieve the goal, and 2) c*ontext beliefs,* which relate to the environment or context in which the motivation functions, and whether it is responsive to supporting the goal. Finally, Ford describes the third factor—*emotions*—as "help[ing] people deal with varying circumstances by providing evaluative information about the person's interactions with the environment (affective regulatory function) and by supporting and facilitating action designed to produce desired consequences (energizing function)" (p. 252). In an earlier study, Ford identified 14 emotional patterns of motivational influences, outlined in Table 5.

Role	Emotional patterns
Regulate the initiation, continuation, repetition, and termination of behavior episodes	• Satisfaction-pleasure-joy • Downheartedness-discouragement-depression • Curiosity-interest-excitement • Disinterest-boredom-apathy
Regulate efforts to cope with potentially disrupting or damaging circumstances	• Startle-surprise-astonishment • Annoyance-anger-rage • Wariness-fear-terror • Dislike-disgust-loathing
Regulate interpersonal bonding	• Sexual arousal-pleasure-excitement • Acceptance-affection-love • Loneliness-sorrow-grief
Regulate conformity to or cooperation with social expectations and patterns of social organization	• Embarrassment-shame/guilt-humiliation • Scorn-disdain-contempt • Resentment-jealousy-hostility

Table 5. Ford's (1992) emotional patterns of motivational influences (p. 253).

This framework for understanding motivations represents an integration of various motivational theories and the ideology that "complex behavior patterns are usually multidetermined—that is, they are the product of a diversity of interacting motivational and nonmotivational factors" (1992, p. 1). This aligns with O'Meara's explanation for selecting this theory, stating that MST "reminds researchers to consider how faculty perceptions of their own goals and skills, environment, and related contexts might influence their behavior" (p. 9).

The second theory informing O'Meara's (2008) approach is that of intrinsic-extrinsic categories of motivation, informed by Austin and Gamson's (1983) research. In this interpretation of the theory for faculty, "extrinsic factors focus on the environment and conditions under which work is done" and "intrinsic factors...pertain to the nature of faculty work itself" (O'Meara, 2008, p. 9). Examples of extrinsic factors include "reward

systems, workload, working conditions, opportunity structures, and policies"; examples of intrinsic factors include:

> how the work is done and how it affects the faculty member, the variety of activities involved in the work, the degree to which someone performs the activity from beginning to end, the autonomy the person has in doing the work, the responsibility involved, and the amount of feedback the person receives concerning performance (O'Meara, p. 9).

According to Ryan and Deci (2000) "intrinsic and extrinsic types of motivation have been widely studied, and the distinction between them has shed important light on both developmental and educational practices" (p. 54). In a piece on intrinsic and extrinsic motivation theory, they offer a more general description of this dichotomy of motivation, stating "the most basic distinction is between intrinsic motivation, which refers to doing something because it is inherently interesting or enjoyable, and extrinsic motivation, which refers to doing something because it leads to a separable outcome" (Ryan & Deci, 2000, p. 55). In the same article, Ryan and Deci expand upon this explanation further, adding that "in one sense, intrinsic motivation exists within individuals, in another sense intrinsic motivation exists in the relation between individuals and activities" (2000, p. 56). As O'Meara's interpretation of this motivation theory is rooted in an interpretation and findings specific to faculty (Austin & Gamson, 1983), Ryan and Deci's more generalized explanation of this motivational theory enhances its applicability and interpretation for graduate student populations.

Finally, the third theory informing O'Meara's (2008) findings is the research of Anna Neumann on the relationship between faculty learning and faculty members' "lives, scholarly identity development, subject matter expertise, and teaching" (p.10). As

Neuman's findings are specific to faculty populations, the researcher has opted to instead use the findings of Eatman (2012) as the third pillar of her own integrated motivational theory framework for interpreting the findings of this research study.

Methods

As outlined in the introduction, the central research question of this study is: What motivates graduate students' involvement in publicly-engaged activity during their graduate tenure? Secondary questions guiding this research include:

Q_1: What are the personal and professional dimensions of graduate student motivations for public engagement?

Q_2: How can the frameworks and findings of O'Meara (2008) and Eatman (2012) on faculty and graduate student motivations for public engagement be applied to understand graduate student motivations for public engagement?

Q_3: Do patterns of motivation exist based on participants' personal, professional, and academic experiences and backgrounds?

To answer these questions, a mixed-methods approach with a modified sequential transformative strategy was employed. According to Creswell (2003), the sequential transformative strategy allows for "either [quantitative or qualitative] methods [to] be used first", and "priority can be given to either the quantitative or the qualitative phase" (p. 216). Additionally, "a theoretical perspective...guide[s]" this strategy and "the results of the two phases are integrated during the interpretation phase" (Cresswell, 2003, p. 216). This research study does not have a social justice orientation as is common with transformative approaches; however, the researcher believed this model to be the best-

suited for this research, firstly because it accommodates the use of the conceptual frameworks of O'Meara (2008) and Eatman (2012) as a basis to research. Secondly, this method allows for data collected in the first phase to not only inform data collection and analysis in the second phase of research, but to also be integrated in the final interpretation stage of the study. Lastly, collection of both types of data facilitated deep and broad engagement of participants; the qualitative data provided an in-depth look at the experience of publicly-engaged graduate students, and the quantitative data allowed engagement of a larger sample, as well as statistical analyses of students' responses and an exploratory factor analysis to be performed.

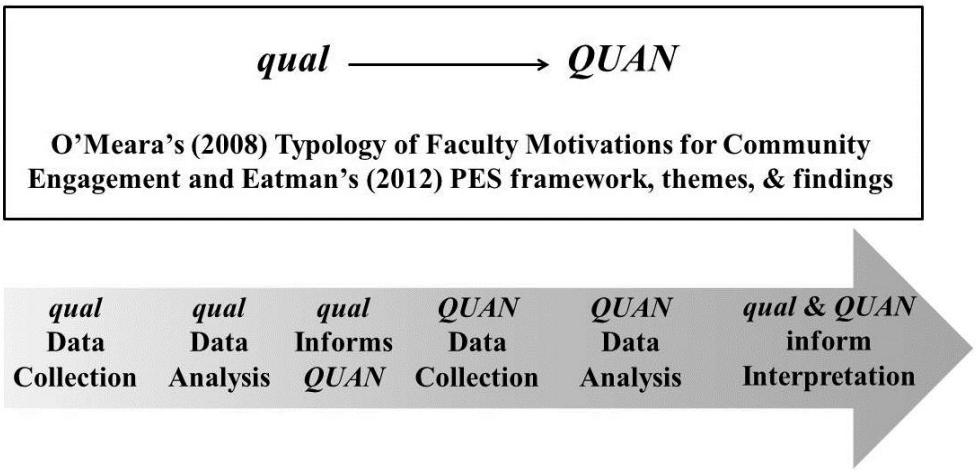

Figure 2. Visual representation of research design informed by Creswell (2003), Morse (1991), and Tashakkori and Teddlie (1998).

Figure 2 provides a visual representation of the research design, which included two distinct phases of data collection and analysis guided by the frameworks and findings of O'Meara (2008) and Eatman (2012). The first phase of the study involved collection and analysis of qualitative data from a focus group of eight publicly-engaged graduate

students enrolled at the University of Minnesota. The purpose of this data was to further refine the survey instrument used in the second, quantitative phase of the study, as well as to interpret survey data. The second, dominant phase of the study involved quantitative data collection and analysis of survey responses from 77 publicly-engaged graduate students enrolled in U.S. higher education institutions.

Instruments

Phase 1. The first phase of the study was a focus group with eight publicly-engaged graduate students from the University of Minnesota. The methodology behind the focus group design paralleled that of Hughes and DuMont (1993), who describe focus groups as "in-depth group interviews employing relatively homogenous groups to provide information around topics specified by the researchers" (p. 776). In this case, the group was "relatively homogenous" in that all students were currently enrolled in a graduate program at the University and involved in some form of public engagement; however, they also came from varying disciplines, backgrounds, identities, and had diverse experiences with public engagement.

The central aim of the focus group was to identify motivations for public engagement among participates in order to validate questions in the survey and uncover potential motivations missing from the survey instrument. As such, the focus group was organized to provide all participants the space to answer open-ended questions regarding their experience with and motivations for public engagement as graduate students (Appendix 1). The focus group was held on March 6, 2015 and lasted approximately one hour. During this time, participants took turns responding to questions asked by the

researcher. Participants also responded to and built upon each other's questions and ideas, resulting in a format similar to that described by Smithson (2008), where "the data obtained...is neither a 'natural' discussion of a relevant topic, nor a constrained group interview with set questions, but it has elements of both these forms of talk" (p. 358).

The researcher began the focus group with a review and participant signature of hard copy consent forms (Appendix 2). In order to mitigate ethical issues associated with focus groups – namely that "group members may not respond appropriately to other members' disclosures" or may share confidential information from the focus group outside of the focus group context— the researcher followed the recommendation of Smithson (2008) "to start the focus group with a list of 'dos and don'ts', including asking participants to respect each other's confidences and not repeat what was said in the group" (p. 360 – 361). In addition to verbally reviewing ground rules for the discussion with participants at the start of the focus group, the researcher provided participants with a hard copy of this text (Appendix 3). This hard copy text also included a definition of public engagement from the University of Minnesota's Office for Public Engagement. Doberneck, Glass, and Schweitzer (2010) assert that "a confusing myriad of terms has proliferated as various institutions, associations, and disciplines have defined and interpreted publicly-engaged scholarship for their specific audiences and contexts"; the provision of a definition of public engagement to participants was the researcher's attempt to address this issue and establish a common understanding and basis for discussion (p. 5). Upon completion of the focus group, audio files were first transcribed verbatim and then were erased.

Phase 2. The primary data collection method of the study was an online, quantitative survey instrument designed to capture the motivations for public engagement, demographics, background, and experience of participants (Appendix 4). Development of survey items related to motivation was informed by O'Meara (2008) and Eatman's (2012) research on faculty and graduate student motivations for public engagement. As can be seen in Tables 6, 7 and 8, the survey instrument included 62 items total.

Table 6 outlines survey items related to participants' demographics, background, and experience. Survey items associated with participants' motivations for public engagement derived from O'Meara (2008) and Eatman's (2012) frameworks are illustrated in Table 7. Table 8 lists survey items related to participants' motivations for public engagement that were informed by focus group data.

Although the survey was not piloted, survey questions were reviewed by the researcher's advisor prior to implementation. The researcher opted to use Qualtrics as the platform for survey publication and delivery as the University of Minnesota has identified this as its preferred online survey platform because of its information security requirements.

Variable	**Item on Survey**
Program affiliation	Q1a-Q1d
Graduate discipline	Q2
Graduate degree	Q3
Institution type	Q4
Graduate public engagement experience	Q5a – Q5g
Undergraduate public engagement experience	Q6a-Q6g
Professional experience with public engagement	Q7
Future career plans	Q9; Q10a-Q10i
Gender	Q13
Ethnicity/Race	Q14
Student status (international or American/domestic)	Q15
Age	Q16

Table 6. Survey items related to background experience and demographics.

Variable	O'Meara Typology Reference	Eatman Findings Reference	Focus Group Reference	Item(s) on Survey
Public Engagement as Pedagogy	I. To facilitate student learning and growth	"Benefits of using public scholarship as a form of pedagogy" (p. 42) ; *Teacher to Engaged Scholar* profile (p. 42)	Statement from Participant 5	Q12a
Discipline	II. To achieve disciplinary goals	77% of survey respondents indicated the "desire to expand knowledge, method and /or scholarship in the discipline" through engaged scholarship" (p. 40)	Statements from Participants 4, 5	Q12e, Q12f, Q12h, Q12l
Personal commitment	III. Personal commitment to specific social issues, places, and people	"Personal and familial history" (p. 42); *Cradle to community* profile (p. 42); *Activist to scholar* profile (p. 43)	Statements from Participants 2, 5, 6	Q11a, Q11i
Identity	IV. Personal/professional identity	Bridging worlds; PES allows for bridging of different aspects, values, and parts of students' lives	Statements from Participant 5	Q12b, Q12c
PES as "cutting edge"	V. Pursuit of rigorous scholarship and learning	"data challenge prevailing view that publicly engaged scholars are less concerned with rigors of methodologically grounded, discipline-specific work" (p. 40); *Engaged Pragmatist* profile (p. 43)	Statement from Participant 3, 8	Q12g,
Value for service & collaboration	VI. Desire for collaboration, relationships, partners, & public making	Top collaborators/partners in respondents PES: community members (26.7%), faculty (24.55%), non-profit organizations (17.19%), and fellow graduate students (14.29%); "Recurring motivations included...a natural, innate, assumed desire to connect scholarship and service" (p. 42)	Statements from Participants 2, 4, 5, 8	Q11c, Q11f, Q11l
Institutional support	VII. Institutional type and mission, appointment type, and/or an enabling reward system and culture for community engagement	Theme of *Institutional Recognition* (p. 41)	Statements from Participant 1, 5, 8	Q11d, Q11j, Q11o, Q12i

Table 7. Survey items related to participants' motivations informed by O'Meara (2008) and Eatman's (2012) frameworks.

Variable	O'Meara Typology Reference	Eatman Findings Reference	Focus Group Reference	Other	Item(s) on Survey
Mentoring		Personal or professional mentors	Statements from Participants 4, 5		Q11e, Q11g, Q11p
Social justice		Promotion of social justice; *Activist to Scholar* profile (p. 42)	Statements from Participants 2, 5, 7, and 8		Q11m
Teaching as Public Engagement			Statement from Participants 2, 4, and 5		Q12d
Institutional or External Incentives			Statement from Participants 8		Q11n
PES of leaders in Discipline			Statement from Participants 3, 5		Q11h
PE challenges to self-reflect			Statement from Participant 3		Q12j
PE purpose to research			Statement from Participant 8		Q12k
Community with other Graduate PES				Participant affiliation with PE Programs	Q11b
Professional Development of PES				Participant affiliation with PE Programs	Q11k

Table 8. Survey items related to participants' motivations informed by focus group findings.

Analysis

Phase 1.

Analysis of focus group responses employed a deductive approach which overlaid both O'Meara (2008) and Eatman's (2012) frameworks on the data. The primary purposes of the focus group were to refine the survey instrument used in Phase 2 through validation of the applicability of motivations established by O'Meara (2008) and Eatman (2012), as well as identification of other motivational factors experienced by graduate students not included in O'Meara and Eatman's findings. The data analysis process itself mirrored that described by Miles, Huberman, and Saldaña (2014), where the researcher "begins with a text, trying out codes on it, then moving to identify patterns, categories, or themes" (p. 162). Paralleling Wolcott's method of qualitative analysis, which involves "relating categories to analytic frameworks in literature", pre-established codes were also employed based on the findings of O'Meara (2008) and Eatman (2012) (Creswell, 2013, p. 181). Thus, process involved identification of a motivating factor and coding of the factor either as a pre-established code or a new, emergent code. As outlined in the first nine rows of Table 8, already established themes included motivations related to: pedagogy; discipline; personal commitment; identity; the view of public engagement as "cutting edge"; value for service; institutional support; social justice; and mentoring. Criteria for inclusion of responses as data within these categories or a new category were that the text related to participants' motivation for public engagement through direct or indirect phrasing indicating motivation (i.e., use of words or phrases such as "why",

"what motivates me..." or "the reason I...") or were direct responses to focus group questions specifically about motivation for public engagement.

Phase 2. Analysis of survey data was performed in SPSS, and included calculation of frequency distribution and means for categories of motivation to examine the intrinsic, extrinsic, professional and personal dimensions of motivations for graduate students. Additionally, responses to each type of motivation were reduced and recoded to two categories (1 - motivation present [scale responses of "great extent" and "some extent"]; 0 - not present [scale responses of "little extent" and "no extent"]) and frequency distributions recalculated so that reporting of motivations could be compared to faculty reporting in O'Meara's (2008) study, where presence of motivation was calculated with 1 or 0; 1 if the motivation was present in the data, 0 if not. To examine patterns of motivation based on the background and experience of participants, multivariate analyses were completed to determine if correlations existed between motivation variables and participant background/experience variables. Finally, an exploratory factor analysis was completed to establish motivational factor groupings of individual survey items to establish a framework for consideration of the broader themes or categories of motivation experienced by this population. The extraction method used was a principal component analysis with a varimax with Kaiser Normalization rotation method. This method was chosen because of its ability to "yield results that make it as easy as possible to identify each variable with a single factor" (Rovai, Baker, & Ponton, 2014, p. 583). Analysis for reliability was also performed on each of the resulting factors.

Sample

While O'Meara's (2008) framework focuses on publicly-engaged faculty and Eatman's (2012) framework focuses on both graduate students *and* early-career publicly-engaged scholars, this study is focused exclusively on the motivations of publicly-engaged graduate students *during* their graduate tenure. As such, participation was limited to currently enrolled or very recently graduated (fall 2014) publicly-engaged graduate students at U.S. institutions. Participation in the first phase of the study was limited to publicly-engaged graduate students currently enrolled at the University of Minnesota. Participants were recruited via an invitation sent to departments across the university, inviting department chairs to share the invitation with publicly-engaged students. A date was selected for the focus group based on the availability of interested participants.

For the second phase of the study, four programs with publicly-engaged graduate student constituencies were selected. The decision to limit participation to individuals affiliated with these specific programs was made to facilitate identification and recruitment of publicly-engaged graduate students from various institutions and disciplines while also bounding the study. The first program selected was the Publicly Active Graduate Education (PAGE) Fellows program of Imagining America. This program annually selects approximately fifteen publicly-engaged graduate students from the arts and humanities as fellows to participate in their national conference (Imagining America, n.d.). PAGE Fellows from the 2013-2014 and 2014-2015 cohorts were invited to participate to increase likelihood of participants being currently enrolled or recently

graduated students. The second program selected was the Engagement Scholarship Consortium's Emerging Engagement Scholars Workshop (EESW). EESW annually selects graduate students and early career faculty from various disciplines to participate in a professional development workshop to advance their publicly-engaged scholarship (Engagement Scholars Consortium, n.d.). Graduate students from the 2013 and 2014 cohorts of this program were invited to participate. The third program selected was the Graduate Certificate Program in Community Engagement at Michigan State University. This program annually admits a cohort of graduate students from across disciplines and degree-types at MSU, and guides and supports students' integration of public engagement into their graduate experience (Michigan State University, n.d.). The final group, Campus Community Partnerships for Health (CCPH), "is a nonprofit membership organization that promotes health equity and social justice through partnerships between communities and academic institutions" (Campus Community Partnerships for Health, n.d.). This group was selected not only for its large graduate student membership base (approximately 250 current and former members), but also because its students come from disciplines less present in the other three groups. Recent and current graduate student members of CCPH were invited to participate in the study. Thus, eligibility criteria for both phases required the following: 1) participants be currently or recently enrolled (graduated no earlier than fall 2014) graduate students at U.S. higher education institutions; and 2) participants self-identify as publicly-engaged graduate students through their association with one or more of the aforementioned groups.

Based on approximations of demographic data provided by the coordinators of each program, the total eligible population for participating in the second phase of the study was approximately 380 students (250 affiliated with CCPH; 30 affiliated with PAGE; 20 affiliated with EESW; and 80 affiliated with MSU's Graduate Certificate Program in Community Engagement).

Findings and Discussion

Phase 1: Focus Group

While all University of Minnesota graduate students, the backgrounds and identities of focus group participants were diverse. Of the eight participants, 50% were male, 50% were female. Three of the participants were Ph.D. students in American Studies, three were Ph.D. students in Sociology, one was a Ph.D. student in Anthropology, and one was a Master's student in Public Health. No other demographic information was collected, although the researcher believes at least two (25%) of the participants identify as people of color based on responses gathered during the focus group related to identity. Analysis of the focus group data resulted in motivation categories that paralleled those of O'Meara's framework and the findings of Eatman (2012), illustrated in Table 7 on page 28.

Parallels between focus group Data and O'Meara (2008) and Eatman's (2012) frameworks and findings. The first of O'Meara's (2008) motivation types is "Motivation to facilitate student learning and growth" (p. 14). According to O'Meara, "research suggests that a primary reason faculty are motivated to become involved in service-learning is their belief that it will increase student understanding of course

material and enhance student development" (2008, p. 14). A parallel perspective was shared in the focus group, when a participant stated:

> "I use community service learning as a really core component of the class [I teach] where students are required to basically get involved with a social movement...and through the class use theories and the research that we talk about...and apply it to the organization or...their experience".

Later on, the same participant expanded upon this, sharing a lasting impact of service-learning on his students, stating that "a few [students] have gone on to either continue to work with their organizations, or...maintained connections with their organizations".

This mirrors Eatman's (2012) finding that among the recurring motivations of graduate and early career scholars were the "benefits of using public scholarship as a form of pedagogy" (p. 42). There is also similarity between this and the *Teacher to Engaged Scholar* profile in Eatman's typology, where the individual "may be looking for ways to improve teaching and learning and make connections with their students through publicly engaged work" (p. 42). Thus, while not all graduate students have the opportunity to instruct courses or incorporate service-learning into the courses they teach, this participant demonstrated that for some graduate students, the student learning and development from public engagement integrated in curriculum can be a motivation and format of graduate students' public engagement.

The second motivation type O'Meara (2008) outlines is "Motivation grounded in the perceived fit between the discipline and the engagement" (p. 16). According to O'Meara, "faculty members' perception of the fit between their discipline and engagement will influence their involvement", and in her analysis, "nominees narratively located themselves within their disciplines and explained how community engagement

acted as a vehicle to accomplish disciplinary goals" (p. 15). Eatman (2012) had a similar finding of graduate students making a connection between their discipline and public engagement, with 77% of survey respondents in his study indicating the "desire to expand knowledge, method and /or scholarship in the discipline through engaged scholarship" (p. 40).

Multiple focus group participants spoke to this connection. One participant shared, "I went this way [into public engagement], well my background is in sociology, and just in the field sort of is a call of action to engagement". Another stated:

> ultimately I feel like getting people involved in hands on history and doing archeology is a good way to get people to really understand their past, [and] I think it's a really good way for us as archeologists or historians or anthropologists to really understand better ways to interpret a lot of the material culture.

This participant also talked about her goal to "come up with some sort of model to do more publicly-engaged archeology for the university in the future, that they [the university] can build on". A third participant commented on his belief in

> a real mandate...that's not unique to sociology--all social science disciplines would share that insight—and if we don't take that as a call to action to help spread that message, then we're going to always have a society where knowledge is siloed and dominant ideologies are taken for granted and inequalities aren't questioned.

O'Meara's third type of motivation is "Motivation grounded in personal commitments to specific social issues, people, and places", observing that "half of the nominees found motivation and satisfaction for their work in these very concrete commitments to people and places that had developed over time" (p. 17). Similarly, Eatman found "personal and familial history" to be a recurring motivation among interview respondents, and the *Cradle to Community* and *Activist to scholar* profiles

exhibit similar motivations (2012, pp. 42-43). In the *Cradle to Community* profile, individuals "become involved with their local communities because of personal values (e.g., religious, familial)", and the *Activist to Scholar* profile "captures the activist who connects with the university and uses it as a platform to further pursue activism" (Eatman, 2012, pp. 42-43).

Comparable motivations were seen in multiple focus group responses. One participant responded to a question about the origin of her motivation for public engagement:

> it has come from the work that I do in a lot of communities throughout Minneapolis, and just kind of seeing how challenging it is—the barriers that a lot of the families face in just accessing school officials and having their voices heard, and communicating with teachers or other people at the schools, and just how much more difficult it is for those communities.

Another student shared how his experience working with American Indian communities influenced the focus of his publicly-engaged scholarship:

> I've done a lot of language work...and community-based research projects, [and] helping develop curriculum for youth programming as well, in the Dakota communities...[M]y dissertation is in a lot of ways in response to some of the conversations I've had in communities around some of [that] work, and I think it's trying to answer this question in communities around why the suicide rate is so high in native communities, and trying to respond to that.

A third student grounded her motivation in her American Indian identity and experience, stating that, "for me it's really about working with my own people, getting our own stories, really engaging with them, making my work actually their work too". The same student also shared that she "always knew that eventually [she] wanted to go back, because having people from that community doing research...us[ing] the skills...collected in academia, but also our own cultural skills... is really imperative." This response

demonstrated the possibility of overlap between this type of motivation and O'Meara's fourth type, "Motivation grounded in personal/professional identity" (p. 18). The personal aspect of this motivation is described by O'Meara as "motivation related to...personal identity and experience (e.g., race, gender, sexual orientation, disability) and its relationship to community engagement" (p. 18). In this instance, not only did the student's experience with a specific tribal community motivate her public engagement, but it was "intimately connected" to her personal identity as an American Indian (O'Meara, 2008, p. 18). This echoed the *Bridging Worlds* theme among Eatman's (2012) findings where interview respondents expressed a desire to "bridge different aspects, values, and parts of their lives [with scholarship] as a motivation for undertaking engaged scholarship" (p. 41).

This fourth category of motivation is two-fold in that identity can also be professionally-oriented, with the individually experiencing success in their community engagement to the extent that they "become known professionally in almost every way—on and off their campuses—for service-learning and engagement" (O'Meara, 2008, p. 19). While this seems to be a phenomenon more likely to be experienced by mid- to late-career faculty, one focus group participant cited "professional gratification" as one of his top four motivations for public engagement, and another student seemed to professionally identify with sociology theorists engaged in public work. Similarly, in Eatman's study, 73.33% of survey participants identified as "scholars" in the larger context of publicly engaged scholarship, suggesting that professional identity can be a motivator for public

engagement in graduate student populations as well, although it may manifest differently (2012, p. 40)

O'Meara's (2008) fifth type of motivation is "Motivation grounded in pursuit of rigorous scholarship and learning", where individuals "believe strongly that what they are doing is cutting-edge for their discipline and for professional communities outside their institution...and are motivated in part by a desire to be on the "frontiers" of their discipline" (p. 19). This corresponds to Eatman's (2012) *Engaged Pragmatist* profile, which describes an individual who "sees the writing on the wall and recognizes that publicly engaged scholarship is becoming prevalent within the academy" (p. 43). Additionally, 77% of Eatman's (2012) survey responses viewed public engagement as a means to "expand knowledge, methods and/or scholarship in the[ir] discipline" (p. 40). This perspective was present in focus group comments. One participant noted among his motivations for public engagement for his work "to add relevance as well as innovation to research". Another participant stated:

> in our field [sociology], this [public engagement] is becoming less of a voluntary thing. It is not yet expected that you... work through some sort of public outreach, but it's getting to be that a lot of big names in our field, at least, do something like that, and it's starting to become an unspoken professional requirement, or edge of some kind. So thinking about the extent to which some types of public engagement in certain spheres done in certain ways is not necessarily on the margins anymore, but might actually be something graduate students think they have to do.

Similarly, another participant commented, "research is very precarious right now, both in structural terms – it's hard to get funding – and also public knowledge and legitimacy terms...and that makes our field very precarious. I think public outreach is one of the ways to really evangelize for the field".

O'Meara's sixth type of motivation is "Motivation grounded in a desire for collaboration, relationships, partners, and public-making". This paralleled Eatman's (2012) finding of participant motivations to include "a natural, innate, assumed desire to connect scholarship and service" (p. 42). In this study's focus group, multiple participants made statements suggesting this as a key motivation for their public engagement. When asked directly to name the top three motivations for their public engagement during graduate school, one participant shared "collaboration with communities my work engages with" among her top three. Another responded with the word "relational". This same student later added that what informed his view was:

> doing publicly-engaged work and realizing, with a lot of research, people often see the relationships they've built as sort of a means to an end", unlike publicly-engaged scholarship where "those relationships... are the end...and last beyond just one single research project.

Another participant shared a personal experience with a publicly-engaged research project to illustrate a similar perspective, noting that while the research "from a scientific perspective wasn't necessarily the most fruitful...[she] walked away with a feeling of actually having made a difference", and added that she still maintains contact with some of the community members she worked with. A different participant had a similar reaction, stating "when I work with people, it makes me feel more comfortable", as compared to "sitting in the archives...just writing what you think about this thing rather than making a collaborative effort".

O'Meara's final motivation type in her framework is "Motivation as grounded in institutional type and mission, appointment type, and/or an enabling reward system and culture for community engagement" (p. 22). Although graduate students' experience of

institutional support and culture is bound to be different from a faculty's support as their role and positionality within an institution is inherently different, Eatman's (2012) research suggests that institutional recognition is important to early career publicly-engaged scholars. Furthermore, there were a number comments made in this study's focus group that would fall under the category of institutional-related motivations. One participant shared that during her undergraduate and master's studies of history, she was "trained in [a] really traditional discipline of history...[and didn't] see room for [public engagement]". It was not until she began her Ph.D. at the University of Minnesota that she realized her public engagement work with American Indian populations could be incorporated into her studies and research, demonstrating an institutional role at the departmental level in her motivations for graduate public engagement. Similarly, another participant commented that "one of the reasons that [he] chose [his graduate program at the University of Minnesota] is because there is an emphasis on the public". He described the departmental culture as one where "there's an emphasis on doing community engaged research, and a lot of the faculty are engaged" unlike some of the other programs he applied to. A different participant made a connection between the University's status as a land-grant institution and public engagement, stating, "I feel like it [public engagement] should become, to some extent, expectation. Especially at the University of Minnesota which is a public, land grant institution, that was designed to serve the citizens of Minnesota, and so...your work should in some way be serving this mission of the University".

When asked what institutions could do to support graduate student public engagement, students named financial support for community-engaged activity, university-facilitated partnerships with community, and more graduate-level courses with public engagement elements. Thus, although a different relationship than faculty with the institution, universities still play a role in graduate student motivations for public engagement.

New Types of Motivation

While the focus group validated the transferability of O'Meara's (2008) types of motivation to graduate student populations, it also revealed that this framework is not comprehensive as several new categories emerged, some of which aligned with the findings of Eatman (2012), others that were unique to the focus group data. Table 8 on page 29 outlines these new types of motivation, noting two which are supported by Eatman's findings, five that emerged from the focus group findings alone, and two which the researcher hypothesized as motivations because of participants' decision to affiliate themselves with the four public engagement programs selected to participate in the second phase of this study. As discussed in the instruments section and illustrated by Tables 7 and 8, the researcher incorporated these focus group findings into the design of the survey so that survey items addressed all of the motivation types identified. As the chief purpose of the focus group was to refine the survey instrument and aid interpretation of survey results, the researcher did not assert findings in response to this study's research questions until after survey data had been collected and analyzed.

Phase 2: Survey

As outlined in the sample section, participants in the survey were currently enrolled or recently graduated (Fall 2014) publicly-engaged graduate students attending U.S. higher education institutions and affiliated with one more of the four public-engagement programs/organizations selected for this study. The survey had a 20.3% response rate, or 77 out of approximately 380 possible participants, after some participants were excluded for one or more of the following reasons during the data cleaning process: attendance of a non-U.S. institution; not currently or recently enrolled as a graduate student; not affiliated with one of the four organizations; and completion of less than 25% of non-demographic-related survey items.

Demographics of participants. Of the 77 participants, 46.8% were affiliated with Community-Campus Partnerships for Health (CCPH), 29.9% were affiliated with the Engagement Scholars Consortium, 14.3% were affiliated with Imagining America's Publicly Active Graduate Education program, and 11.7% were affiliated with the Engagement Scholarship Consortium's Emerging Engagement Scholars Workshop (note: two participants identified affiliation with more than one group).

As Table 9 outlines, the largest percentage of participants identified their discipline as falling within the category of Education and Social Sciences (46.8%), followed by Health and Social Care (31.5%), Arts and Humanities (10.1%), and STEM (5.2%). Two participants (2.6%) identified their discipline as not fitting within these categories. Regarding type of degree enrollment, the majority (61%) of participants identified their degree type as an academic Ph.D. This was followed by enrollment in an academic

master's degree (i.e., M.A./M.S.; 16.9% of respondents), professional master's degree (i.e., M.B.A., M.Ed., M.P.H., M.P.P., etc.; 10.4% of respondents), and professional doctorate (i.e., Pharm.D., Ed. D., etc.; 10.4%). One student (1.3%) selected "other" to describe their degree type. The majority of respondents also identified as attending public universities (83.1%; 15.6% identified as attending private universities, and 1.3% as attending for-profit institutions. As can be seen in Table 9, and not uncommon in studies of public engagement in U.S. higher education, participants disproportionately

Demographic Information of Participants
Percentage Distribution of Respondents (N = 77)

Discipline	Percentage
Education and Social Sciences	46.8%
Health and Social Care	35.1
Arts and Humanities	10.1
STEM	5.2
Other	2.6
Degree Type	
Academic Ph.D.	61.0
Academic Master's	16.9
Professional Master's	10.4
Professional Doctorate	10.4
Other	1.3
Institution Type	
Public University	83.1
Private University	15.6
For-profit	1.3
Gender	
Female	80.5
Male	19.5
Race	
White	57.1
African American	16.9

Hispanic or Latino	10.4
Asian	7.8
Two or more ethnicities	7.8
Student Status	
U.S. Student	88.3
International Student	11.7

Table 9. Percentage distributions of participant demographics and background.

identified as female (80.5%) and White (57.1%). Additionally, the majority identified as U.S. students (88.3%), as opposed to international students studying at U.S. institutions (11.7%). The age of participants ranged from 23 to 65, with the mean age 34.2 (N=75). There is much to report from the data and room for further analysis, but for the purpose of this study, findings are organized according to the guiding research questions outlined in the Methods section.

Personal and professional dimensions of graduate student motivations for public engagement. In order to address this secondary research question, the researcher classified each of the survey items related to motivation as personal or professional. Personal factors were identified as those that likely related to participants' "private life, relationships, and emotions rather than matters connected with one's public or professional career" (personal, n.d.); professional factors were identified by drawing from Sweitzer's (2009) content areas for doctoral professional identity. Some motivational factors were categorized as both personal and professional as the researcher believed there to be the potential for coexistence of personal and professional dimensions of these motivations, which aligns with Sweitzer's assertion that "students' personal and

professional lives merge" (2009, p. 30). Table 10 outlines these various motivations and notes the frequency of positive responses (i.e., “some extent”, “great extent”, “agree”, or “strongly agree”) for each.

Item	**Frequency of positive responses (some/great extent or agree/strongly agree)**	**Personal/Professional**
Q11a Specific societal issue	83.1%	Personal
Q11b Interacting with other publicly-engaged graduate students	58.4%	Professional or Personal
Q11c Value for collaboration	87.0%	Personal
Q11d University support of public engagement	46.8%	Professional
Q11e Graduate advisor	53.2%	Professional
Q11f Value for co-creation of knowledge	84.4%	Personal
Q11g University-affiliated mentor	61.0%	Professional
Q11h Publicly engaged scholarship of leaders in discipline	63.6%	Professional
Q11i Specific population or community	85.7%	Personal
Q11j Department support of public engagement	39.0%	Professional
Q11k Public engagement workshops and conferences	71.4%	Professional
Q11l Value for community work	97.3%	Personal
Q11m Desire to advance social justice	87.0%	Personal
Q11n Institutional or external incentives and awards	37.7%	Professional
Q11o Graduate-level publicly-engaged coursework	61.0%	Professional

Q11p Mentor outside university	51.9%	Professional or Personal
Q12a Service-learning benefits students	66.2%	Professional
Q12b Public engagement connects academic to personal identity	89.5%	Personal
Q12c Public engagement is significant to professional identity	96.1%	Professional
Q12d Views teaching as Public engagement	73.7%	Professional
Q12e Public engagement facilitates deeper learning	93.5%	Personal or Professional
Q12f Public engagement facilitates discipline goals	83.1%	Professional
Q12g Public engagement is valued by future employer	70.1%	Professional
Q12h Public engagement is a natural fit for discipline	83.1%	Professional
Q12i Public engagement is facilitated by university-community relationship	45.5%	Professional
Q12j Public engagement challenges to self-reflection	93.5%	Personal
Q12k Public engagement gives purpose to research	97.4%	Personal or Professional
Q12l Publicly engaged scholarship is well-regarded in field	59.7%	Professional

Table 10. Frequency of positive responses to survey items related to motivation and classification of items according to personal/professional dichotomy.

It is interesting to note that the motivation factors with the lowest frequencies of positive responses were by and large of a professional nature. While at first glance one might interpret this as personal motivations being more significant than professional motivations to graduate, it is necessary to note that some frequencies may be lower due to a lack of access to the factor for reasons outside of participants' control. Motivational

factors with positive responses that were less than 50% included: university support of public engagement (46.8%); department support of publicly-engaged scholarship (39.0%); institutional or external incentives and awards (37.7%); and facilitation of public engagement through an existing university-community relationship (45.5%). In the focus group data, all of these factors were addressed either as motivations or areas students desired to see increased support. For example, regarding institutional or external incentives and awards, one participant shared her perspective on the need for more funding opportunities for publicly-engaged graduate students. She spoke of an opportunity for a publicly-engaged fellowship that was offered the previous summer and described this opportunity as "amazing for people like us [publicly-engaged graduate students] that have to sort of fight in these really competitive fellowships of money". A number of other students in the group spoke about the importance of funding and the significance of a fellowship such as that described. This qualitative data suggests an interpretation of the 37.7% as reflective of the number of publicly-engaged graduate students who have *access* to such incentives or rewards, as opposed to this category having low potential for motivation in this population. This is not to say that some participants did not respond in the negative because extrinsic, professional motivators are not as significant to them as intrinsic, personal motivators; however, it does nuance interpretation of the frequency distributions and limit our understanding of the exact meaning of these findings.

Motivations with <50% positive response	**Motivations with >90% positive response**
46.8% Q11d University support of public engagement	97.3% Q11l Value for community work
39.0% Q11j Department support of public engagement	96.1% Q12c Public engagement is significant to professional identity
37.7% Q11n Institutional or external incentives and awards	93.5% Q12e Public engagement facilitates deeper learning of discipline
45.5% Q12i Public engagement is facilitated by university-community relationship	93.5% Q12j Public engagement challenges to self-reflection
	97.4% Q12k Public engagement gives purpose to research

Table 11. Comparison of motivations with lowest (<50%) and highest (>90%) positive responses.

It is also interesting to compare the motivations with the lowest positive response to those with over a 90% positive response (Table 11). To use the professional/personal as well as the intrinsic/extrinsic dichotomies, we see that those motivations with a low positive response are primarily professional or extrinsic motivations, while those with the highest positive responses are primarily personal, intrinsic motivations. Again, this suggests that the data may reflect students' access to various motivations, as personal/intrinsic motivations (i.e., belief systems, values, etc.) are accessible to anyone, whereas professional/extrinsic motivation factors are dependent upon the context of the individual where the accessibility of certain motivations may be limited.

Applicability of O'Meara (2008) and Eatman's (2012) frameworks and findings. Based on the corresponding aspects of O'Meara (2008) and Eatman's (2012) findings, as well as data collected in the qualitative and quantitative phases of this study,

both researchers' frameworks appear relevant to the population sampled for this study. However, when comparing positive responses to survey items based on O'Meara's (2008) categories of motivation, the difference in frequencies suggests a uniqueness to how these motivations are experienced by graduate students compared to faculty (Table 12).

Type of motivation	**Prevalence in O'Meara's sample**	**Prevalence in Phase II survey sample**
I. To facilitate student learning & growth	94%	66.2%
II. To achieve disciplinary goals	53%	83.1%
III. Personal commitments to specific social issues, places, and people	50%	Societal issue: 83.1% Specific population or community: 85.7%
IV. Personal/professional identity	60%	Personal identity: 89.5% Professional identity: 96.1%
V. Pursuit of rigorous scholarship and learning	44%	Learning: 93.5% PES well-regarded in field: 59.7%
VI. A desire for collaboration, relationships, partners, and public-making	47%	Collaboration: 87.0% Co-creation of knowledge: 84.4% Community work: 97.3%
VII. Institutional type and mission, appointment type, and/or an enabling reward system and culture for community engagement	50%	University support: 46.8% Department support: 39.0% Graduate PE coursework: 61.0% University-community relationship: 45.5%

Table 12. Comparison of frequency of positive responses to motivation types.

Additionally, when performing an exploratory factor analysis of responses to motivation-related survey items, the researcher discovered seven groupings of motivation that have some similarities with O'Meara's (2008) categories of motivation and Eatman's (2012) profiles, but at the same time represent a unique categorization specific to this

dataset and population. Table 13 outlines this new conceptual framework and the individual survey items related to each motivation category.

Category of Motivation	Survey Items	Cronbach's Alpha
I. Institutional & Field Support of Public Engagement	11d University-wide support of publicly-engaged work 11e Encouragement from my graduate advisor 11g Encouragement from a University-affiliated mentor other than my advisor 11j Departmental support of publicly-engaged work 11o Experience with graduate-level coursework involving community-based research or other forms of public engagement 12g Public engagement experience is valued by future employers and will be beneficial to my career prospects 12i My public engagement was facilitated by an existing relationship between my institution and the community	.813
II. Values	11c Value for collaboration 11f Value for co-creation of knowledge 11l Value for community work 11m A desire to advance SJ 12j I appreciate the way public engagement challenges me to self-reflect 12k Public engagement gives purpose to research	.839
III. Discipline	12e Public engagement allows me to engage in deeper learning and understanding of my discipline 12f Public engagement facilitates my research or work goals related to my discipline 12h My academic discipline is a natural fit for public engagement 12l The public engagement work of others in my field is well-regarded by others in my discipline	.763
IV. Public/ External Community	11a A specific societal issue 11i A specific population or community 11n Institutional or external incentives (i.e.,	.627

& Validation		grants, scholarships, awards)	
	11p	Encouragement from a mentor not affiliated with my University	
V. Identity	12b	Public engagement allows me to complete academic work that is related to one or more of my personal identities	.721
	12c	I view public engagement as significant to my professional identity	
VI. Peer Networking & Scholarship	11b	Interaction with other publicly-engaged graduate students	.766
	11h	Publicly-engaged work of leaders in my field of study	
	11k	Attending conferences or workshops focused on public engagement	
VII. Teaching & Pedagogy	12a	Public engagement (such as service-learning) facilitates unique learning and development opportunities for the students I teach	.546
	12d	I view teaching itself as a form of public engagement because it involves citizenship development	

Table 13. Seven categories of graduate student motivation from exploratory factor analysis.

Category 1: Institutional and Field Support of Public Engagement. The first category of motivation is composed of seven survey items that reflect motivations related to the perception of support of public engagement from participants' institutions and fields. Within institutions this might include: encouragement from graduate advisors, departmental or university-wide support of public engagement, offering of graduate-level publicly-engaged coursework, and a preexisting university-community relationship for students to build upon. At the field or discipline level, motivational factors include the perception that public-engagement is valued by the student's discipline both in terms of scholarship and employment. This motivation category has some commonality with

O'Meara's (2008) seventh motivation type, and also her assertions related to the influence of reward systems and institutional environment and mission to faculty engagement. There is also similarity to Eatman's (2012) finding that "publicly engaged scholars on the tenure track noted [the role of] their institutional support...[and their view that] for their university to fully commit to public scholarship, schools and departments should recognize PES [publicly engaged scholarship] within the tenure process" (pp. 41-42). This category also parallels Eatman's (2012) finding of the value of mentorship to publicly engaged graduate students and early career faculty. Analysis of this dataset suggests that not only is perception of institutional support a motivation to graduate students, but also the perception of regard for public engagement within their field.

As noted in the matrix in Table 14, this category represents primarily extrinsic motivation, as the experience of this motivation is dependent upon sources external to the individual. This category also parallels the *context beliefs* category of *personal agency beliefs* in Ford's (1992) model. Ford states (1992) that *context beliefs* are "related to the environment or context in which the motivation functions and whether it is responsive to supporting the goal" (252); the items that make up this category are all related to participants' institutional and discipline contexts, as well as their experience of motivation within those contexts.

Category 2: Values. The researcher has titled the second motivation category that emerged "Values", as the six items in this category include more intrinsically-inclined motivational factors that reflect individuals' values related to scholarly activity or goals. The survey items making up this category include motivations related to participants'

values for collaboration, co-creation of knowledge, community work, self-reflection, advancement of social justice, and public engagement as a means for giving purpose to research. This category parallels O'Meara's (2008) finding that:

> Within the Ehrlich files examined, 50 percent noted motivations for their service-learning and engagement related to conscious personal commitments to either campus partners or social issues. Nominees mentioned commitments to the environment, public health care, public education, and urban planning. But perhaps even more interesting were the ways Ehrlich nominees located their motivation in specific neighborhoods and working with specific community organizers. They described these contexts and people and what they had come to mean to them over time." (p. 17)

There is also a semblance between this category of motivation and Eatman's (2012) *Cradle to Community* profile type, which "describes scholars who became involved with their local communities because of personal values (e.g., religious, familial) [and whose] involvement with the community may be what leads them to pursue graduate work" (p. 42). As this category deals primarily with individuals' beliefs and desires, the researcher classified this category as primarily intrinsic. A comparison can also be drawn between this category and Ford's (1992) *personal goals,* which are "thoughts about desired (or undesired) states or outcomes that one would like to achieve (or avoid)" (p. 248), with the various values representative of states or outcomes.

Category 3: Discipline. The third category of motivation was comprised of items related specifically to participants' perception of their discipline. These included the perceptions that: public engagement allows participants to engage in deeper learning and understanding of their disciplines; public engagement facilitates participants' research or work goals related to their disciplines; participants' academic disciplines are a 'natural'

fit for public engagement; and the public engagement of scholars in participants' disciplines is well-regarded.

This category corresponds to O'Meara's (2008) finding that faculty perceive public engagement as "cutting-edge for their discipline" (p. 19) and Eatman's (2012) finding regarding participants association of publicly engaged scholarship with the expansion of "knowledge, methods, and/or scholarship in the[ir] discipline" (p. 40). The researcher classified this category as both intrinsic and extrinsic in recognition of the individual, intrinsic nature of discipline goals for learning and research, and extrinsic contextual factors that influence one's perception of discipline as a 'natural fit' for public engagement. The MST factor that most closely parallels this motivation category is *personal goals*, specifically related to discipline.

Category 4: Public/External Community and Validation. The fourth motivation category is made up of items that reflect motivation related to: a specific societal issue; a specific population or community; encouragement from a mentor not affiliated with the University; and institutional or external incentives or awards. The researcher titled this category as "Public/external community and validation" as the first two items are related to a broader public or community connection that motivates the students' public engagement, while the final two reflect validation and encouragement of participants' public engagement from external sources. This category bears similarities to O'Meara's (2008) finding that faculty participants in her study noted motivations connected to "conscious personal commitments to either campus partners or social issues" (p. 17). Eatman's (2012) *Activist to Scholar* profile also has some overlap category, as it

represents a "community activist who connects with the university and uses it as a platform to further pursue activism." (p. 43). The importance of validation of work represented by awards and recognition for engagement has also been supported by other research on publicly-engaged faculty (Forbes, Wasburn, Crispo, & Vandeveer, 2008).

This category represents both intrinsic and extrinsic motivation, and also relates to MST's *personal goals* and *context beliefs* in that public engagement motivated by a specific issue or community may be tied to individual values and goals, but also external support that promotes the perception that the context the individual is operating in is supportive of public engagement.

Category 5: Identity. The fifth category of motivation relates to students' perception of public engagement as connected to their professional and/or personal identities. This echoes Eatman's (2012) finding that 73.33% of participants defined themselves as "scholars" and 73.11% defined themselves as "researchers" within a publicly engaged scholarship context, suggesting a connection between their professional identities and public engagement. Similarly, O'Meara (2008) noted that in her sample, for some faculty public engagement (specifically service-learning) was intricately connected to their perception of their professional identity. Although professional identity may be informed by extrinsic factors, as this category deals more with perception of self and identity, the researcher classified it as an intrinsic motivation. There did not appear to be any one MST factor that represented this category; rather, it is likely one's identity both informs and is informed by all three MST factors (personal agency beliefs, personal goals and emotions).

Category 6: Peer Networking and Scholarship. The sixth category of motivation includes motivation from: interaction with other publicly-engaged graduate students; the publicly-engaged work of leaders in my field of study; and attending conferences or workshops focused on public engagement. The researcher titled this category "Peer Networking and Scholarship" as it reflects motivations related to students' interaction with and inspiration from other publicly-engaged graduate students and scholars.

This category is similar to O'Meara's (2008) sixth motivation type (Motivation grounded in a desire for collaboration, relationships, partners, and public-making). When describing this category, she states, "several studies have shown that faculty may be first motivated to service-learning or engagement by their colleagues, students, and staff and the collegiality and positive feedback they experience being involved in an engagement" (O'Meara, 2008, p. 20-21). Although Eatman's (2011) study findings address the importance of mentoring, his typology and findings do not point to the role of the publicly-engaged scholarship of discipline leaders as a motivation, nor the importance of professional development and networking with a focus on public engagement. This category does, however, parallel research by Eatman from a different study, in which he comments on graduate student seeking out "peer mentoring networks that allow them to work on how to integrate engagement into their fields or discipline" (Ellison & Eatman, 2008, p. 16). This observation about graduate students seeking peer community in their public engagement is supported by findings on graduate student development and the importance of social integration, interpersonal and peer relationships to this population (Gansemer-Topf, Ewing Ross, L., & Johnson, R. M., 2006, p. 20).

Regarding connection to the intrinsic/extrinsic frameworks, this category of motivation represents more extrinsically-oriented motivation as the items informing it involve motivations external to the individual experiencing them. Concerning parallel with the MST framework, the items in combination could be interpreted as corresponding to *personal agency beliefs (context beliefs)* as they represent the existence of a context where personal goals related to public engagement can be supported and realized. They could also be interpreted as paralleling Ford's *emotions* factor. The *emotions* factor "help[s] people deal with varying circumstances by providing evaluative information about the person's interactions with the environment (affective regulatory function) and by supporting and facilitating action designed to produce desired consequences (energizing function)" (Ford, 1992, p. 252). More specifically, the experience of the emotions of *acceptance* and *satisfaction* (two emotional patterns outlined by Ford) might be associated with the validation or sense of community that comes with students' experience of the various items making up this category.

Category 7: Teaching and Pedagogy. The final category of motivation that emerged involves motivational factors related to the individuals' practice or philosophy of teaching, and the relationship of public engagement to pedagogy. Survey items in this category include the view that public engagement enhances pedagogy by facilitating unique learning development for students as well as the perspective that teaching itself is an act of public engagement as it involves citizen development of students.

This motivation category has much similarity to O'Meara's (2008) first type of motivation (*Motivation to facilitate student learning and growth*) and finding that "a

primary reason faculty are motivated to become involved in service-learning is their belief that it will increase student understanding of course material and enhance student development" (p. 14). Eatman (2012) also stated in his findings that, "while various extrinsic and intrinsic motivations inspired public scholars, recurring motivations included the benefits of using public scholarship as a form of pedagogy" (p. 42). It is important to note that the association of these items was not as strong as others (Cronbach's Alpha = .546); however, the researcher chose to include this category as it is unique from the others, the two items are similarly focused on pedagogy, and the Cronbach's Alpha is relatively close to being greater than .6.

The researcher believes this category of motivation could be interpreted as either intrinsic or extrinsic depending on the context of the individual. For example, a graduate instructor who elects to add a service-learning component to the course they instruct may be motivated by an intrinsic value or goal for increasing citizen development in students, or may be motivated extrinsically if the institution they are affiliated with has strong support or value for service-learning. Regarding Motivation Systems Theory, there is some intersection between this category and the MST concept of *Personal agency beliefs* in the sense that a graduate students' experience of this motivation category would necessitate both *capacity beliefs* (perception that they have the skills/abilities to achieve the goal – in this case the use of public engagement to enhance pedagogy and teaching) and c*ontext beliefs* (perception that the context or environment – in this case the institution – is supportive of the goal).

Graduate Student Motivations Matrix

As illustrated in Table 14, this framework bears similarity to the findings and frameworks of both O'Meara (2008) and Eatman (2012). Yet it also is distinct in that the categories represented are specific to graduate students and involve some motivational factors not as strongly identified by the other findings (e.g., Peer Networking and Scholarship). Furthermore, using MST and the intrinsic/extrinsic motivation theory lenses to classify and understand categories adds to the value of this framework and the consideration of its applicability to institutional contexts.

The intrinsic/extrinsic dichotomy may be useful to institutions for identifying institutional degree of influence for supporting and cultivating motivation for public engagement among this population. While it is certainly possible there are means to support and nurture students' intrinsic motivations for public engagement (for example, creating space in graduate coursework or advising conversations for students to reflect on how their values inform their public engagement), extrinsic motivations may be easier for institutions to identify and influence (for example, providing financial support to public engaged activity, or offering more graduate-level coursework with a public engagement focus). Colbeck and Weaver (2008) discuss how analysis of the motivational factors of faculty for public engagement can be "used to identify leverage points for other faculty and administrators who wish to support, increase, or enhance their own and others' engagement in public scholarship" (p. 7). Similarly, this framework may serve as a model for institutional consideration of the various leverage points for supporting, increasing, or enhancing graduate students' public engagement.

Factor	Extrinsic	Intrinsic	MST	O'Meara	Eatman
I. Institutional & Field Support of Public Engagement	X		Personal Agency Beliefs	X	X
II. Values		X	Personal Goals	X	X
III. Discipline	X	X	Personal Goals	X	X
IV. Public/External Community & Validation	X	X	Personal Agency Beliefs; Personal Goals	X	X
V. Identity		X	Personal Agency Beliefs; Personal Goals; Emotions	X	X
VI. Peer Networking & Scholarship	X	X	Personal Agency Beliefs; Emotions	X	X*
VII. Teaching & Pedagogy	X		Personal Agency Beliefs	X	X

*Present in separate research study by Eatman and Ellison (2008).

Table 14. Matrix of motivation categories and their relation to motivation theories and O'Meara (2008) and Eatman's (2012) frameworks and findings.

Viewing the categories through the lens of MST adds value to the framework in that it prompts consideration of the complexity and intersectionality of motivational factors and categories for individuals. Ford's model represents how individual's motivation for public engagement is likely composed of multiple categories of motivations, and provides a framework for considering how the motivation categories

and factors might function for individuals (i.e., being related to the students' personal goals, personal agency beliefs, or emotions). It also prompts consideration of the uniqueness of the individual experience of motivations for public engagement. As illustrated in Figure 3, one student's motivations (Student A) for public engagement might fit within the MST framework in that their personal goals revolve around a specific public issue, their personal agency beliefs are related to the institutional support of public engagement they experience, and the emotions stimulating their motivation is a sense of community; for another (Student B), a completely different set of motivational factors may be experienced within the same framework. To take it a step further, perhaps Student C has the same motivational factors as Student B, yet the degree of intensity to which they are experienced (represented by the bold, capitalized lettering) and the specific contexts in which they occur are different. In this case, while the degrees of influence of the motivation factors making up Student B's motivation are balanced, for Student C, the strongest motivation factor is their experience of support of public engagement in their field.

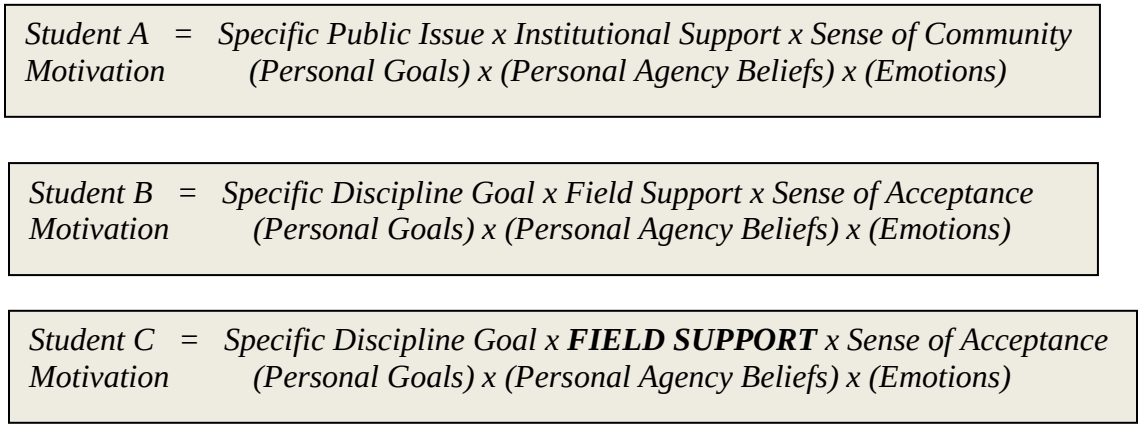

Figure 3. Visual representation of variation in the experience of motivations.

Although the following section outlines the possibility of patterns of motivation for public engagement among graduate student populations, this framework offers important reminder of the simultaneous variance and uniqueness in how motivations are experienced for public engagement among graduate students.

Patterns of motivation. In completing Pearson Chi-square tests between motivation variables and demographic/experience variables, a number of statistically-significant associations emerged. This suggests that in this dataset there are indeed patterns of motivation based on participants' backgrounds and experience. In particular, discipline, institution type, gender, graduate and undergraduate public engagement experience, professional public engagement experience, and career plans had a significant relationship with specific motivation variables. The most prevalent of these was discipline. As outlined in Table 14, participants' responses to the discipline variable had statistically-significant associations with seven motivation variables.

Motivation survey item	Pearson Chi Sq. Asymp. Sig.
Q11b Interaction with other publicly-engaged graduate students	.033*
Q11p Encouragement from a mentor not affiliated with my University	.002**
Q12b Public engagement allows me to complete academic work that is related to one or more of my personal identities	.009**
12d I view teaching itself as a form of public engagement because it involves citizenship development	.012*
12g Public engagement experience is valued by future employers and will be beneficial to my career prospects	.038*

* $p < .05$ ** $p < .01$

Table 15. Statistically significant associations between participants' responses to discipline survey item and participants' responses to motivation-related survey items.

As the purpose of this secondary research question is not to the identify the patterns themselves, but rather to identify *whether* patterns exist at all to inform the value of future research on this topic, the researcher did not attempt to interpret these associations.

Limitations

Limitations of this study related to the sample, researcher, and interpretation of data. Regarding the sample, the researcher did not have concrete demographics from the entire sample, only estimations given by the coordinators of the four groups who facilitated the sharing of the survey with participants. Thus, is difficult to determine the extent to which responses are representative of the entire sample. As this study is meant to be an exploratory study and is less concerned with generalizability, this should not negate findings. Regarding limitations related to the researcher, as this study was conducted in a limited amount of time with by a single researcher with intermediate skill level in data collection and analysis, there may be additional findings available from the data that were overlooked or have yet to be determined. Finally related to the instruments, upon completion of survey data collection, it became clear that interpretation of responses to motivation items would have benefited by additional information regarding participants' access to the motivation factors. This would have allowed for better understanding of the relationship of the motivating factors to participants in the sense that as responses currently exist, it is unclear whether factors with low positive response rates reflect a low significance of applicability to this population or are actually a reflection of a low level of access to the factor as a motivation in this population.

Conclusion

Summary

Drawing from the frameworks of O'Meara (2008) and Eatman (2012), the findings of this exploratory study offer insight into the motivations for public engagement of graduate students attending U.S. higher education institutions. Data from both phases of this study were used to develop a model outlining broader themes of motivation for public engagement experienced by publicly-engaged graduate students. While this framework echoes those of O'Meara and Eatman, it also represents a new model for conceptualizing the motivations of the publicly-engaged graduate student population. Use of the extrinsic/intrinsic and MST theories of motivation as lenses for interpretation of data provided an additional frame for understanding findings as well as considering their meaning for institutional contexts. More specifically, the extrinsic/intrinsic framework assists with identifying motivation factors which lie within institutions' realm of influence, and MST offers a framework for considering the complex and intersectional nature of individual motivations for public engagement. Lastly, preliminary findings point to the presence of some statistically significant patterns of motivation, specifically related to graduate students' discipline. This suggests that although the combination and nature of motivational factors experienced by graduate students may be unique to individuals, further research on overarching associations between motivational factors and students' demographics, background, and experience is warranted.

Recommendations & Future Research

Based on the findings of this study, graduate degree programs and institutions can consider how the resulting framework may aid them in reflecting on methods—or "leverage points" (Colbeck & Weaver, 2008)—for improving support of graduate student public engagement. It may also be useful as a framework for examining or assessing the ways a department or program are or are not cultivating and sustaining students' motivation for public engagement. The researcher recommends consideration of more extrinsically-oriented categories as a first step, followed by examination of more intrinsically-oriented categories as these may require less concrete, more creative approaches to conceptualizing support. Although the researcher did not employ Herzberg's two-factor theory for interpretation in this study, there may be a parallel worth further exploration between Herzberg's dichotomy of factors and interpretation for application of the motivation categories outlined in this study. In particular, Herzberg's framework of four combinations of hygiene (extrinsic) and motivation (intrinsic) factors (Table 16) could be useful in combination with this study's framework (Miner, 2005).

Hygiene factor →

Motivation factor ↑

Low hygiene, high motivation	High hygiene, high motivation (IDEAL)
Low hygiene, low motivation	High hygiene, low motivation

Table 16. Visual representation of four combinations of Herzberg's two-factor theory.

Additionally, as preliminary findings suggest there are statistically significant associations between some motivation factors and certain disciplines, there is value to the consideration of motivations most prevalent to the populations the institution is working with (for example, a department reflecting on supports to focus on for a specific degree program) as well as a need for further research on this. Further research on the applicability of other motivation theories (including Herzberg's) to interpretation of the motivations of this population would also be of value. Additional studies resulting in more generalizable findings on motivations in combination with studies that focus on specific populations within the broader population of U.S. publicly-engaged graduate students would also deepen understanding of the experience and nature of this population. Other possibilities for research examination include studies to on motivations for public-engagement among graduate students studying at non-U.S. institutions.

Eatman (2012) asserts that "given the history of the civic engagement movement and especially the lack of attention placed upon graduate education in this evolving context, it is prudent to develop inquiries and systematic research programs that illuminate the aspirations and decisions of this new citizenry of academe" (p. 43). The findings of this study similarly point to a need for continued research on this topic so that we may refine our understanding and use this to inform approaches to supporting the publicly engaged graduate student population.

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Appendix 1. Focus Group Script

Hi everyone, my name is Elizabeth Dunens and I am a graduate student at the University of Minnesota. Thank you for taking the time to participate in a focus group on graduate student motivations for public engagement. This focus group is being conducted as part of my thesis research on publicly-engaged graduate students. What you share will be used to refine the design of my survey instrument for this study. I would like to hear from you about your experiences with public engagement during your graduate tenure and your motivations for involvement with public engagement.

During this focus group, I will ask questions and facilitate a conversation about your experience. Please keep in mind there are no "right" or "wrong" answers to any of the questions I ask. Additionally, you may choose to not answer questions asked. I hope you will be comfortable speaking honestly and sharing your ideas.

There will be an audio recording of this session to ensure your responses are accurately recorded. The content of this recording will be confidential and your name will not be attached to any comments you make. I will begin the recording after introductions have been made to limit identifiers in the recording. Included in the ground rules of the discussion, which I will share with you in a moment, is the agreement that what is said in this room stays here so that people will feel comfortable sharing freely about their experience.

(Hand out of Ground Rules for discussion)

Please take a moment to read through the ground rules for discussion. When you are ready, please verbally indicate that you agree to these ground rules.

Do you have any questions before we begin?

1. First, I would like us to start with introductions. Please share with the group your name and your area of study.

    a. I will now begin recording your responses

2. Before we move on to questions related to your experience with public engagement, I would like us to take a moment to review the University of Minnesota's definition of the term "public engagement" so that we have a common definition to ground our conversation in. Please turn over the hard copy of "Ground Rules" that I gave you and take a moment to read and reflect on this definition before we continue on.

3. Considering the multiple forms of public engagement, take a moment to reflect on the ways you have been publicly engaged as a graduate student. Please share these with the group as you are ready.

4. In considering the various forms of public engagement you are involved with, what some of reasons you became involved with public engagement as a graduate student. When you are ready, please share all the reasons you identified with the group.

    a. *Prompt: If participants are exclusively naming one category of motivation, I may follow up with a prompt to consider other motivations they have experienced (For example, "The motivations you have named seem to be more personal in nature. Have other motivations that might be of a more academic or professional nature also influenced your public engagement activity?)*

5. As we have just heard, many different factors can lead to involvement in public engagement. Taking this into consideration, what would you say have been the top three motivations for your public engagement as a graduate student?

6. Can each of you expand upon your experience of the motivations you named? For example, how did you experience this motivation, when did you experience it, what was its origin?

7. Now imagine you are a part of a committee that is designing a university program with the focus of supporting publicly engaged graduate students. What would you identify as key supports for initiating graduate students' involvement in public engagement?

8. Continuing with this scenario, what would you identify as key supports for maintaining graduate students' involvement in public engagement?

9. Is there any other information you would like to contribute that you think would be helpful to understanding why graduate students become involved in public engagement during their graduate study?

Thank you so much for participating in this focus group. In case you have any questions or need to contact me regarding the study, I am giving each of you my business card. If you are interested in the findings of the study, please contact me via email and I will be happy to share them with you upon completion.

Appendix 2. Focus Group Consent Form

CONSENT FORM
Graduate Student Motivations for Public Engagement Study

You have been invited to participate in a research study on graduate student motivations for public engagement. You were selected to participate because of your status as a publicly-engaged graduate student at the University of Minnesota, Twin Cities. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Elizabeth Dunens, Organizational Leadership, Policy, & Development, University of Minnesota.

Background Information
The purpose of this study is to better understand graduate student motivations for public engagement during their graduate study.

Procedures
If you agree to be in this study, we would ask you to do the following:

- Participate in a one-time, approximately one hour-long focus group on the University of Minnesota Twin Cities campus in March 2015. During this focus group you will respond to open-ended questions related to your experience with public engagement as a graduate student alongside 6-8 other participants (also graduate students).

Risks and Benefits of being in the Study
The study has minimal risk. The primary, potential risk is breach of confidentiality, of which there is low likelihood of occurrence.

There are no direct benefits for participants of this study; however, indirectly the findings of this study may benefit your experience as a publicly-engaged graduate student by assisting institutions and programs in better understanding this population.

Compensation
There is no compensation for participation in this study.

Confidentiality
The records of this study will be kept private. In any sort of report we might publish, I will not include any information that will make it possible to identify you or any of the study participants. Research records will be stored securely and only I will have access to

the records. Study data will be encrypted according to current University policy for protection of confidentiality.

The tape recording of the focus group will only be accessed by me (the Principal Investigator) for transcription purposes and will be erased upon transcription.

Voluntary Nature of the Study
Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota or the department/programs through which you may have heard about this study.

If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions
The researcher (principal investigator) conducting this study is: Elizabeth Dunens, a masters student in the Department of Organizational Leadership, Policy, and Development at the University of Minnesota. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at University of Minnesota, (612) 636-8902, eacahill@umn.edu or her advisor, Professor Andrew Furco, at University of Minnesota, (612) 624-6876, afurco@umn.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature:_____ Date: _____

Signature of Investigator:_____ Date: _____

Appendix 3. Focus Group Handout

Ground Rules for Discussion

1. The primary goal is to hear from you
    - I would like everyone to participate.
    - I may call on you if I haven't heard from you in a while. If you do not wish to respond to the question, you are free to state this.

2. There are no right or wrong answers
    - All experiences and opinions are valid.
    - Speak up whether you agree or disagree.

3. What is shared in the room is confidential
    - Please respect what is shared during the discussion by not sharing it outside of the discussion.

Definition of Public Engagement, University of Minnesota Office for Public Engagement:

"At the University of Minnesota, public engagement is the partnership of university knowledge and resources with those of the public and private sectors to enrich scholarship, research, and creative activity; enhance curriculum, teaching and learning; prepare educated, engaged citizens; strengthen democratic values and civic responsibility; address critical societal issues; and contribute to the public good."

Appendix 4. Survey Instrument

Thank you for your willingness to participate in the following survey. This survey is being conducted as part of a University of Minnesota graduate student research study on graduate student public engagement. You have been identified as an ideal participant for this study because of your affiliation with one of the following programs:

- Campus Community Partnerships for Health (CCPH)
- Engagement Scholars Consortium (ESC) Emerging Scholars Workshop
- Imagining America PAGE Fellows
- Michigan State University's Graduate Certificate in Community Engagement Program

The survey will take approximately 10 minutes to complete and must be submitted by April 30, 2015 to be included in the study. Participant responses are voluntary and confidential. Access to survey data will be limited to the primary investigator of the study. If you have any questions or concerns, please contact Elizabeth Dunens, eacahill@umn.edu, (612) 636-8902.

Graduate Student Motivations for Public Engagement Study
We ask that you read this form and ask any questions you may have before proceeding (see Contacts and Questions below).

This study is being conducted by Elizabeth Dunens, Organizational Leadership, Policy, & Development, University of Minnesota. Background Information The purpose of this study is to better understand graduate student motivations for involvement in public engagement during their graduate study. Note: While the terms "public engagement" and "community engagement" are often used interchangeably, for the purposes of this study, "public engagement" will be used.

Procedures
If you agree to be in this study, you will be asked to do the following: Complete an online survey composed of questions aimed at capturing participants' background, experience, and motivations for public engagement. The survey should take approximately 10 minutes to complete.

Risks and Benefits of Being in the Study

This study has minimal risk. The primary potential risk is breach of confidentiality, of which there is low likelihood of occurrence. There are no direct benefits for participants of this study; however, indirectly the findings of this study may benefit their experience as publicly-engaged graduate students by assisting institutions and programs in better understanding this population.

Compensation
There is no compensation for participation in this study.

Confidentiality
The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify you or anyone else who has completed the survey. Research records will be stored securely and only I will have access to the records. Study data will be encrypted according to current University of Minnesota policy for protection of confidentiality.

Voluntary Nature of the Study
Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota, Campus Community Partnerships for Health (CCPH), Engagement Scholars Consortium (ESC), Imagining America PAGE Fellows, or Michigan State University's Graduate Certificate in Community Engagement Program. If you decide to participate, you are free to not answer any question or withdraw your participation at any time without affecting those relationships.

Contacts and Questions
The researcher conducting this study is: Elizabeth Dunens. You may ask any questions you have now or later by contacting her at University of Minnesota, eacahill@umn.edu, (612) 636-8902; or her advisor, Andrew Furco, at University of Minnesota, afurco@umn.edu, (612) 624-6876.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

- ❍ Statement of Consent: I have read the above information. I have asked questions I have about the study and received satisfactory answers. I consent to participate in the study.

Copy of Consent Form

You were emailed a PDF of the consent text as an attachment to your invitation to participate. If you would like an additional copy emailed to you, please enter an email address in the field below. Your email address will not be used for any other purpose and will be deleted from our records once the document has been sent. Note: This is optional.

Q1. Which of the following groups are or have you been affiliated with?

- ❑ Campus Community Partnerships for Health (CCPH)
- ❑ Engagement Scholars Consortium (ESC) Emerging Scholars Workshop
- ❑ Imagining America PAGE Fellows
- ❑ Michigan State University Graduate Certificate in Community Engagement Program

Q2. What graduate degree are you currently working toward?

- ❍ Professional Master's degree (M.P.H., MBA, M.Ed., etc.)
- ❍ Academic Master's degree (M.A., M.S.)
- ❍ Professional Doctorate (Pharm.D., Ed.D., etc.)
- ❍ Academic Doctorate (Ph.D.)
- ❍ Other (please describe in the box below) _____

Q3. Which of the following best describes your graduate area of study?

- ❍ Arts & Humanities
- ❍ Education & Social Sciences
- ❍ Health & Social Care
- ❍ Science, Technology, Engineering & Mathematics (STEM)
- ❍ Other (please describe in the box below) _____

Q4. Which of the following best describes the institution you attend?

- ❍ Public University
- ❍ Private University
- ❍ For-profit Institution
- ❍ Other (please describe in the box below) _____

Q5. To what extent have you engaged in the following activities as a graduate student?

	Great extent	Some extent	Little extent	No extent	Does not apply
a. Enrollment in graduate coursework involving community-based work or research	❍	❍	❍	❍	❍
b. Teaching courses that involve service-learning or other community-based work	❍	❍	❍	❍	❍
c.Involvement with co-curricular public engagement	❍	❍	❍	❍	❍
d. Conducting publicly-engaged research for my thesis or dissertation	❍	❍	❍	❍	❍
e. Conducting publicly-engaged research that is NOT part of my thesis or dissertation	❍	❍	❍	❍	❍
f. Other public engagement activity (please	❍	❍	❍	❍	❍

describe in the box below)					
g. Other public engagement activity (please describe in the box below)	❍	❍	❍	❍	❍

Q6. To what extent did you participate in the following as an undergraduate student?

	Great extent	Some extent	Little extent	No extent	Does not apply
a.Credit-bearing coursework with community-based work (e.g., service-learning courses)	❍	❍	❍	❍	❍
b.Community-engagement focused majors, minors, or academic programs	❍	❍	❍	❍	❍
c. Co-curricular community engagement activity	❍	❍	❍	❍	❍
d. Internships outside of the university	❍	❍	❍	❍	❍
e.Community research	❍	❍	❍	❍	❍

f. Other public engagement activity (please describe in box below)	❍	❍	❍	❍	❍
g. Other public engagement activity (please describe in box below)	❍	❍	❍	❍	❍

Q7. Prior to beginning your graduate program, to what extent did your professional work experience involve some form of public engagement or community work?

- ❍ Great extent
- ❍ Some extent
- ❍ Little extent
- ❍ No extent
- ❍ Does not apply

Q8. To what extent did this professional work experience influence your decision to seek out public engagement opportunities during your graduate study?

- ❍ Great extent
- ❍ Some extent
- ❍ Little extent
- ❍ No extent
- ❍ Does not apply

Q9. How likely or unlikely do you view the possibility of working in the following employment sectors after completing your degree?

	Very likely	Likely	Unlikely	Very unlikely
a.University/college with an emphasis on research	❍	❍	❍	❍
b.University/college with an emphasis on teaching	❍	❍	❍	❍
c.Other educational setting (non-higher education)	❍	❍	❍	❍
d. Federal government	❍	❍	❍	❍
e. Other government (e.g., state, local)	❍	❍	❍	❍
f. Private sector: Not for profit	❍	❍	❍	❍
g. Private sector: For profit	❍	❍	❍	❍
h. Self-employed	❍	❍	❍	❍
i. Other (please specify)	❍	❍	❍	❍

Q10. What is the likelihood that you will pursue a faculty position after completing your degree?

- ❍ Very likely
- ❍ Likely
- ❍ Uncertain
- ❍ Unlikely
- ❍ Very Unlikely

Q11. To what extent have the following motivated your involvement in public engagement as a graduate student?

	Great extent	Some extent	Little extent	No extent	Does not apply
a. A specific societal issue	❍	❍	❍	❍	❍
b. Interaction with other publicly-engaged graduate students	❍	❍	❍	❍	❍
c. Value for collaboration	❍	❍	❍	❍	❍
d. University-wide support of publicly-engaged work	❍	❍	❍	❍	❍
e. Encouragement from my graduate advisor	❍	❍	❍	❍	❍
f. Value for co-creation of knowledge	❍	❍	❍	❍	❍

Q11 (cont.)

	Great extent	Some extent	Little extent	No extent	Does not apply
g. Encouragement from a University-affiliated mentor other than my advisor	❍	❍	❍	❍	❍
h. Publicly-engaged work of leaders in my field of study	❍	❍	❍	❍	❍
i. A specific population or community	❍	❍	❍	❍	❍
j. Departmental support of publicly-engaged work	❍	❍	❍	❍	❍
k. Attending conferences or workshops focused on public engagement	❍	❍	❍	❍	❍
l. Value for community work	❍	❍	❍	❍	❍

Q11 (cont.)

	Great extent	Some extent	Little extent	No extent	Does not apply
m. A desire to advance social justice	❍	❍	❍	❍	❍
n. Institutional or external incentives (i.e., grants, scholarships, awards)	❍	❍	❍	❍	❍
o. Experience with graduate-level coursework involving community-based research or other forms of public engagement	❍	❍	❍	❍	❍
p. Encouragement from a mentor not affiliated with my University	❍	❍	❍	❍	❍

Q12. To what extent do you agree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Does not apply
a. Public engagement (such as service-learning) facilitates unique learning and development opportunities for the students I teach	❍	❍	❍	❍	❍	❍
b. Public engagement allows me to complete academic work that is related to one or more of my personal identities	❍	❍	❍	❍	❍	❍
c. I view public engagement as significant to my professional identity	❍	❍	❍	❍	❍	❍
d. I view teaching itself as a form of	❍	❍	❍	❍	❍	❍

public engagement because it involves citizenship development						

Q12. (cont.)

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Does not apply
e. Public engagement allows me to engage in deeper learning and understanding of my discipline	❍	❍	❍	❍	❍	❍
f. Public engagement facilitates my research or work goals related to my discipline	❍	❍	❍	❍	❍	❍
g. Public engagement experience is valued by future employers and will be beneficial to my career prospects	❍	❍	❍	❍	❍	❍
h. My academic discipline is a natural fit for public engagement	❍	❍	❍	❍	❍	❍

Q12.(cont.)

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Does not appy
i. My public engagement was facilitated by an existing relationship between my institution and the community	❍	❍	❍	❍	❍	❍
j. I appreciate the way public engagement challenges me to self-reflect	❍	❍	❍	❍	❍	❍
k. Public engagement gives purpose to research	❍	❍	❍	❍	❍	❍
l. The public engagement work of others in my field is well-regarded by others in my discipline	❍	❍	❍	❍	❍	❍

Q13. Please select the response that best describes your gender identity

- ❍ Female
- ❍ Male
- ❍ Other

Q14. Please select the response that best describes your ethnic or racial identity

- ❍ American Indian or Alaska Native
- ❍ Asian or Asian American
- ❍ Black or African American
- ❍ Hispanic or Latino
- ❍ Native Hawaiian or Other Pacific Islander
- ❍ White
- ❍ Two or more ethnicities/races
- ❍ Other

Q15 Which of the following best describes your student status

- ❍ U.S. student
- ❍ International Student
- ❍ Other _____

Q16 What is your current age in years?